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MILITARY REPORT

ON

TIBET

PREPARED BY THE GENERAL STAFF,  
ARMY HEAD QUARTERS, INDIA



CALCUTTA  
SUPERINTENDENT GOVERNMENT PRINTING, INDIA  
1910



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# MILITARY REPORT ON TIBET.

## CHAPTER I.

### GEOGRAPHY.

**T**IBET lies in the heart of the Asiatic Continent, and extends roughly from the 79th to the 103rd degree of east longitude, and from the 28th to the 37th degree of north latitude. It

#### General description.

is bounded on the north and east by the Chinese provinces of Turkistan, Mongolia, Kan-su, Ssu-chuan, and Yun-nan; and on the south and west by the British territories or dependencies of Assam, Bhutan, Sikkim, Nepal, British Garhwal, Tehri Garhwal, Bashahr, Kangra, and Kashmir. It will thus be seen that Great Britain and China are the only two countries whose territories are coterminous with those of Tibet, and who can therefore rightly claim to exercise any political authority over that part of Asia. It will also be noted that, though the frontiers of protected or independent native states comprise a large portion of the southern frontier of Tibet, actual British territory only touches it at three places, *i.e.*, at Spiti (in the Kangra district of the Punjab), at Garhwal and Almora (in the Kumaon Division of the United Provinces of Agra and Oudh), and at Assam.

The actual boundaries of Tibet, especially to the north and east, are ill-defined and frequently non-existent. It is therefore difficult to estimate the area of the country with any exactitude, but, including all the country south of the Altyn Tagh and Nan Shan mountains, it may be taken as some 600,000 square miles, and may be said to approximate to the areas of Eastern Bengal and Assam, Bengal, the United Provinces, the Punjab, and Bombay, put together.

An estimate of the population of the country presents even greater difficulties. A census is said to have been taken

#### Population.

by the Chinese in 1737, which showed an undoubtedly under-estimated return of 852,200 laity and 316,200 lamas; but the enumerators probably entirely ignored the large nomadic portion of the population. This was nearly two hundred years ago, and the question of increase is affected by various considerations. The widely-existing practice of polyandry, the steadily-increasing numbers of celibate lamas, and the ravages of small-pox, all tend to show that, if the population is increasing at all, it is increasing slowly. It seems probable that the total population of the country at the present day does not exceed 3,000,000 souls. Judging from the same standard of comparison, this figure may be said slightly to exceed a fiftieth part of the population of the Indian provinces mentioned above, or to be roughly equivalent to a twentieth part of the population of Bengal alone. Tibet may thus be reckoned as one of the most sparsely populated countries of the world.

Regarding Tibet in its general aspects, the two most remarkable features presented by the country are the gigantic system of mountain ranges by



which it is entirely surrounded, and the great elevation of the whole territory. A glance at the map of Asia will show that most of the great mountain systems of the continent radiate, as it were, from the neighbourhood of the Pamirs. From this region we can trace the course of the Tian Shan, the Mustagh, the Hindu Kush, the Kwen Lun, and the Himalaya ranges. It is the two latter which have isolated Tibet from the deserts of Central Asia on the north, and from the plains of India on the south, and which support between them the lofty table-lands and river-basins which constitute the country. The drainage of these uplands to the sea has cut its eastern slopes into a series of parallel crests and gorges trending south-east and south, and presenting a barrier to outside aggression scarcely less effective than the more lofty ranges to the north and south.

In regard to the general elevation of Tibet, its claim to be considered the loftiest country in the world cannot fail to be admitted. For hundreds of miles, the great northern tracts average an elevation of from 15,000 to 17,000 feet above sea-level, and its very valleys scale 11,000 feet, at which altitude are to be found cities and commercial marts. The Tsang-po, or Brahmaputra, presents the unrivalled phenomenon of a navigable river at an elevation of 13,700 feet, while monasteries, sheltering large communities of men and women, are erected from choice at heights exceeding that of the summit of Mont Blanc. The passes daily surmounted by man and beast scale anything up to 19,000 feet, and a peak of 20,000 feet is, in Tibet, considered no extraordinary elevation.

Tibet has been aptly described as a huge pear-shaped formation, with the small end of the pear attached to the south-eastern corners of the Pamir plateau, at the point where the Kashmir hinterland looks northward over the sources of the rivers of Chinese Turkistan. The Mustagh represents the stem, while the provinces of Ladakh and Baltistan (politically outlying districts of Kashmir, but geographically and ethnographically Tibetan, and appropriately known as Little Tibet) form the narrow end of the pear. Thence the northern side of the formation curves eastward, and is represented by the mountain ranges of Kwen Lun, Altyn Tagh, Nan Shan, etc., which, following each other in succession, carry the northern boundary of Tibet to the Chinese province of Kan-su. The southern side of the formation is represented by the main range of the Himalaya. The broad end of the pear is composed of the mass of mountain, which, curving symmetrically south-east from the Kan-su border, and finally due south towards Burma, contains in its midst the ill-defined boundary of Western China.

The country thus enclosed falls naturally into three distinct divisions, each of a different physical aspect. The first of these comprises the great northern desert, or Chang Tang, — a vast table-land lying at an average elevation of upwards of 16,000 feet, a region too high and too cold for anything but pastoral use. Large tracts of it still remain unexplored, but the records of those who have succeeded in crossing this inhospitable region are sufficient to show that the greater part of it is practically impassable for any but small parties of men. As a possible area for military operations, it can safely be disregarded, and from this point of view it is to be looked on as the true Tibetan bulwark of the Indian frontier.



The second physical division of Tibet presents a completely different aspect. It comprises the upper valleys of the Indus, Sutlej, and Brahmaputra,

#### The Southern Zone.

and the areas drained by them and their different affluents. The Indus flows from east to west, and contains in its valley some notable towns, which are local centres of trade. The Tsang-po, or Brahmaputra, flows from west to east through the heart of the country, and its basin may be said to constitute Tibet proper. Here lives the settled portion of the population, and here are to be found thriving cities, stretches of fertile pasture land and cultivated fields, trade routes, and all the other indications of a prosperous community. The Brahmaputra itself is navigable for long stretches, and by this means the towns and villages along its banks maintain a considerable trade and social intercourse. The river-basin includes the two main subdivisions of Central Tibet,—the provinces of U and Tsang (known conjointly as Utsang), which the natives regard as Tibet proper as compared with the outlying districts of Kham, etc. It is this rich and prosperous region which adjoins British territory, and, in spite of the intervening Himalayan wall, it is in true geographical affinity with India. It is in striking contrast to the barren and desolate wastes which confront the Russian possessions to the north. "The journey from the Indian frontier to Lhasa may be made in a fortnight over fairly good country roads and through tracts which are partially cultivated. From the north, — from Kashgar or the frontier of Chinese Turkistan to Lhasa, it is a journey of months across a wild and desolate table-land, the horrors of which have been described to us by Sven Hedin, Bower, Prjevalski, and others, presenting an aspect of Tibet which has little in common with the Tibet of the Upper Brahmaputra."\* It is, moreover, this part of all Tibet with which we are most intimately acquainted. With the exception of a considerable length of the Eastern Brahmaputra (which scarcely falls within this natural division of Tibet) practically the whole of this southern zone has been frequently traversed and minutely reported on.

The third section of the country consists of the wild and rugged regions of Eastern Tibet. The Eastern escarpment

#### Eastern Tibet.

of the Chang Tang, from the steppes of Tsaidam on the north to the rim of the Brahmaputra basin on the south, forms the western boundary of this natural division, while the ill-defined boundary of Western China is its eastern limit. Here arise innumerable rivulets, the first affluents of the great rivers of China, Burma, and Siam, which, by cutting the whole surface of the country into a series of ridges and furrows, have formed a natural barrier between China and Tibet. It is the contiguity of these rugged mountain walls which is the chief obstacle to aggression from the east, though, as will be seen later, the same geographical distribution rather favours approach from the south-east, and may in the future provide the most important commercial highways into the heart of the country. This region is tenanted for the most part by a number of little semi-independent states, and by savage nomad tribes, whose ostensible mode of living is the tending and breeding of horses and yaks, but who are notorious all over Tibet for their daring brigandage and robbery. In many parts, Eastern Tibet is a veritable no-man's land, bound by only the slightest of ties either to China or Lhasa, and often owing allegiance to neither. Boundaries are uncertain and frequently non-existent, and the local chiefs are practically beyond the reach of outside control. The nature and characteristics of these tribes will be dealt with in a later chapter. Eastern Tibet is

\* Colonel Sir T. Holdich.



important in view of its unexploited wealth and future promise. Here are to be found the centres of Tibetan art and manufacture; and in the upper valleys of the Chinese rivers within the limits of Eastern Tibet there is abundant evidence of the existence of gold in large quantities. Nor is its mineral wealth confined to gold, for silver, copper, lead, iron, and mercury are all to be found; agate, salt, and borax are also among its products. In the future of Tibetan commercial policy it is Eastern Tibet which will prove to be the most important division.

Such, in their general aspects, are the main characteristics of the three Tibetan classification of districts. natural physical divisions of Tibet. But there is another classification of the country, — that of the Tibetans themselves, — which requires to be noticed. The Tibetans discriminate between what they know as Tang, Drok, Rong, and Gang districts. The Tang districts comprise the region of the plateaux or steppes, more particularly characteristic of the region already alluded to as the Chang Tang, or Northern Desert. The Drok districts are the great upland pasturelands, and are found chiefly in Southern Tibet; bogs, swamps, and gullies, with a soft, black, peaty soil, are their characteristic qualities. The Rong districts include those parts of the country which are much cut up by deep ravines and gorges, through which flow the rapid affluents of the larger rivers. On the ledges of such ravines hamlets and *gompas* are built; and the inhabitants industriously cultivate the strips of alluvial deposit. They are favourite spots for habitation; one advantage being the abundant water close at hand, another the richness of the soil, and a third the general low altitude at which this conformation is found. One of the chief Rong districts is that between Shigatse and the Yamdrok Tso, which, though a network of ravines and gorges, literally teems with villages and monasteries. The conformation of country known to the Tibetans as Gang is peculiar to the province of Kham in Eastern Tibet. Its principal characteristics are forest-clad hills and grassy valleys, rich in creepers, flowers, ferns, and fruit.

## FRONTIERS.

Throughout the whole of Tibet few definite boundary lines exist at all. Even where Tibetan territory is coterminous with British India they are mostly ill-defined; elsewhere they are altogether non-existent, or only indicated by the limits of tribal influence or by overwhelming geographical considerations. In the following description of the frontier, where doubt exists as to the limits of the country, the question will be considered severally from a geographical, an ethnographical, and a political point of view.

Taking as a convenient starting-point the intersection of 36 degrees north latitude with 80 degrees east longitude in the north-west corner of the Chang Tang, we find a well-defined boundary in the main crest of the Kwen Lun, which approximately follows the 36th parallel of north latitude. At about 83 degrees east longitude the main range forks; from this point a northern branch curves north-east, under the name of Altyn Tagh, as far as 89 degrees east longitude, where it strikes a more easterly direction and finally joins the Nan Shan range on the Kan-su border. The southern branch maintains its east-to-west course along the 36th parallel as far east as 92 degrees east longitude; but as far as the 93rd meridian it maintains its connection with the Altyn Tagh by continuous chains of mountains, which curve south-east



from the latter range and together form a triangular strip of country of high elevation and of similar aspect to the Chang Tang. Some uncertainty has existed as to whether this tract of country was within or without the limits of Tibet. It is uninhabited, save by wandering hunters and gold-seekers, but it has now been declared to be under the jurisdiction of the Tibetan authorities. The northern frontier, then, may be considered to follow the main crest-line of the Altyn Tagh from the 83rd degree of east longitude as far as its junction with the Nan Shan range south of Sa-chu. Whether Tsaidam should be included within the Tibetan border is another question which has long been open to doubt, but the Chinese Minister at Si-ning has recently intimated that Upper Tsaidam and western Thai-ji are Tibetan territory, Tsaidam being shown on the Chinese atlas as subject to control from Lhasa; and the Chinese governors at Sa-chu and Chargalik have intimated that they hold their jurisdiction to extend "only as far as the mountain range behind which lies Tibet." This in itself is a somewhat vague pronouncement for responsible Chinese officials to have made, inasmuch as it contains a studied avoidance of any specific information, but we may reckon the Humboldt range (the eastern continuation of the Altyn Tagh) as representing the boundary between Mongolia and Tibet. It should, however, be borne in mind that a frontier of this description is largely a theoretical one. Ethnographically, the Tibetan border would exclude the whole of Tsaidam, skirting the Koko Nor to the west and meeting the Kan-su border somewhat north of that lake. Similarly, the *de facto* political border of Tibet would follow the southern (or main) branch of the Kwen Lun, and, on arriving at the eastern extremity of the Shuga Ula, would double back abruptly in a south-westerly direction in order to exclude the semi-independent tribes of the Tsaidam and Koko Nor region. Geographically, if we ignore the preponderating claims of the main Kwen Lun water-parting, the crest-lines of the Altyn Tagh and Humboldt ranges constitute reasonable boundaries; but the control which Lhasa exercises over the region so enclosed exists only in name, and, apparently, in the minds of the Chinese frontier officials.

Returning to the theoretical boundary at the point we left it, we find that it leaves the Humboldt range at about the 97th meridian, and, passing to the north of the Kara Nor forms a junction with the Kan-su border at the latter's westernmost point about 98° east longitude. Southwards from this point we enter into a region of much uncertainty, the Chinese authorities themselves expressing ignorance of the limits of Lhasan jurisdiction,— an ignorance which is emphasised by the fact that the Chinese Government possess no maps of this region dated later than the eighteenth century. There is reason to infer, however, that China holds Tibetan authority to extend up to the recognised limits of her western provinces; the Peking Government has, indeed, vaguely intimated, in reply to a joint note from the British and Russian ministers regarding the limits of Tibet, that no change has taken place, and that the old limits should be regarded as authoritative. But here, again, a Tibetan frontier coincident with the borders of Kan-su, Ssu-chuan, and Yun-nan cannot be regarded as anything but theoretical, for the jurisdiction of Lhasa ends, as a matter of fact, some hundreds of miles to the west, while certain semi-independent tribes of undoubted Tibetan origin (who, if anything, recognise Lhasa rather than Peking), are to be found within the Chinese border to the east. It is unlikely that any satisfactory solution to this problem will be forthcoming till some unforeseen contingency may compel China to make a less evasive statement regarding the true limits of jurisdiction in



the west of her dominion. In the meantime, we can only discuss possible boundary-lines. Taking first the recognised frontier of Kan-su, Ssu-chuan, and Yun-nan, it will be found to take a south-easterly and then a southerly course from the neighbourhood of the Kara Nor, passing to the east of the Koko Nor somewhere about the 101st meridian. Crossing the Hoang Ho, which for a short space forms the frontier, it curves south-east again along the crest-line of the Si-king Shan till the latter forms a junction with the Min-shan mountains and Ssu-chuan territory. Thence the border takes a generally south-west course, turning south at a point a few miles west of Batang along the crest line of the Ning-ching Shan, one of the few properly demarcated boundaries in this part of Tibet.

Regarding the eastern border from a purely geographical standpoint, we cannot ignore the natural physical frontier formed by the crest of the Yung Ling range and its southern extension, the Hung Shan. This unquestionably constitutes the natural western limit of the Chinese frontier, and a portion of it is still the recognised frontier of Ssu-chuan. Neither to the north nor south do we find any such valuable guide to limitation: its northern extremity is extended to the Hoang Ho by the Si-king Shan, and its southern extremity is lost in the eastward bend of the Tung Ho. From these two points the limits of Tibetan territory can only be traced in accordance with ethnographical and political considerations.

Ethnographically, the eastern frontier of Tibet may be said to follow the Kan-su and Ssu-chuan frontier as far south as the 32nd parallel. From this point it follows a line somewhat to the east of the Yung Ling and Hung Shan mountains, keeping to the left bank of the Tung Ho as far south as Tze-ta-ti. Here it crosses the river, and taking a south-west course to the north of those territories inhabited by tribes of Lolo and Mossu origin, crosses the Yalung at about 28° north latitude. From this point a line drawn due west along the 28th parallel would approximately include all the peoples of Tibetan origin who inhabit the parallel reaches of the numerous rivers which flow from north to south through this part of Asia, and would meet the British frontier in the north-west corner of Assam some miles south of Rima, on the Zayul-Chu.

The strictly political aspect of the eastern frontier is by far the most difficult to define. The Chinese from the east, and the Lhasan Government from the west, have been perpetually encroaching on the territories of the little semi-independent chiefs who inhabit the no-man's land between the two countries. Some of these chiefs acknowledge a Tibetan, some a Chinese, suzerainty; others claim a total independence. It has been shown how the strictly political northern border of Tibet follows the main crest line of the Kwen Lun, and on arriving at the eastern extremity of the Shuga Ula, doubles back in a south-westerly direction. On the eastern frontier, following the water-parting between the Hoang Ho and the Yangtse Kiang, it may be said to proceed as follows:—it crosses the 35th parallel of north latitude at 95 degrees east longitude, and continues south-west until it reaches the Dre Chu or Yangtse. Crossing this river, it follows the crest of the mountain range which bounds the south of the Yangtse basin, and follows this generally south-east course until it reaches the 99th meridian, south of Batang. Turning due west, it here crosses to the Mekong and follows the course of that river as far south as the 28th parallel, where it strikes westward again, and, following an irregular course along the Nam-Kin mountains which cannot be accurately determined, cuts the Zayul-Chu near Same.



Continuing westward from a point some 20 miles below Same, where the boundary-line between Zayul and the southern and western Mishmi country appears to cross the Zayul-Chu, the southern frontier takes a

north-westerly course from the river, and reaches the Po-yul country approximately at the intersection of 29 degrees north latitude and 96 degrees east longitude. Po-yul, though practically independent, is nominally under control from Lhasa, and must therefore be included in Tibetan territory. Of its southern boundary we know practically nothing, and can only take it as approximately following the 29th parallel of north latitude to the point where it crosses the Brahmaputra river near the village of Sa-tong. From this point westward, through about two degrees of longitude, our knowledge is scanty in the extreme, but the border separating Tibet from the region claimed by the Abor and Miri tribesmen appears to run in a generally south-westerly direction from the banks of the Brahmaputra, until it touches the British frontier of Assam some ten miles north of Odalguri. Thence, for a short space, the frontier is clearly delimited; it runs westward to Dewangiri, and then turns northward, rejoining the 28th parallel west of Tsö-na Jong. The northern boundary of Bhutan is ill-defined, but the crest-line of the Himalaya forms a natural frontier and is recognised as such. Near the sacred mountain of Chomolhari it turns south, and here the Tibetan frontier forces a wedge into British territory. The apex of this wedge is the mountain of Gipmochi, where Sikkim, Bhutan, and Chumbi meet. Northwards from Gipmochi, the boundary between Sikkim and Tibet, in the words of the Convention of 1890 (the provisions of which have been further enforced by the Treaty of 1904), is "the crest-line of the mountain range separating the waters flowing into the Sikkim Teesta and its affluents from the waters flowing into the Tibetan Mochu and northwards into other rivers of Tibet. The line commences at Gipmochi on the Bhutan frontier, and follows the above-mentioned water-parting to the point where it meets Nepal territory." This limitation of the frontier carries the Sikkim boundary north of the 28th parallel to the Kongra La, from which point it turns south-west to join Nepalese territory near the Jongsong La. The frontier between Tibet and Nepal may approximately be taken as the crest-line of the Great Himalaya in a westerly direction. From about 86 degrees east longitude it follows a more northerly direction, as far as the No La, from which point it pursues a course parallel to the upper Brahmaputra, and about thirty miles from the river, till it reaches 82 degrees east longitude. Here it strikes due west, and meets the Kumaon frontier near the Lippu Lek Pass. The Kumaon frontier is clearly defined by the backbone of the Himalaya, and this natural boundary is adopted as far as 79 degrees east longitude, which is the extreme south-west corner of Tibet. Striking north, the western frontier of Tibet crosses the Sutlej at the Shipki Pass on the Hindustan-Tibet road, and reaches the south-west corner of Kashmir a little south of the 33rd parallel. Crossing the Indus and the Pangong Tso, it strikes north-east across the Aksai Chin, and cuts the main crest-line of the Kwen Lun at the point from which we started.

Such, in general terms, is the boundary of Tibet. Its most remarkable feature is that it consists almost entirely of some great mountain system. The only portion of the boundary which does not lie at some great altitude is a length of about 50 miles at the southern foot of the Himalaya east of Bhutan, where Tibetan territory, wedging itself into the west of the Abor, Miri, and Aka tribal country, reaches the lower Brahmaputra valley in Assam. Finally it is to be noted that at no single point does the frontier present an even passably easy entrance into the country.



## MOUNTAINS.

The Tibetan plateau is supported on the north and south by mountain ranges of structural similarity. Both the Kwen Lun and the Himalaya consist of a series of parallel walls whose intervening valleys form the steps, so to speak, in the staircase leading up to the Tibetan platform. These steps rise, in the case of the Kwen Lun, from the depression of Chinese Turkistan, and, in the case of the Himalaya, from the plains of India. The top-most step is the crest, or water-parting, of the whole system, and in both cases this is infinitely higher than the plateau itself. There is, of course, the usual apparently tangled mass of subsidiary spurs and geological faults, but careful observation will reveal the underlying arrangement, or plan, on which the two systems are built up. The procession of walls gradually rises in height till it culminates in the crest, — the backbone of the whole system, — and then drops to the level of the central upheaval. This design of parallel ridges is continued across the whole breadth of the plateau. The formation materially affects the system of drainage. The valleys, which, in the case of the Kwen Lun, are the only approaches from the north, have to force their way through transverse passages in the ridges, which renders them liable to narrow, restricted gorges, and which inordinately increases their length. They slope up with comparatively gentle grades, and find, in the crest of the Kwen Lun, depressions which involve far less of precipitous ascent than is necessary to surmount the rugged Himalayan backbone.

The Kwen Lun is a continuation of the Mustagh mountains, which bound

## The Kwen Lun.

the north of Ladakh and Baltistan. Its western extremity rises abruptly from the depression to the north, being set back from the plains of Chinese Turkistan by not more than 50 miles. Further east, it widens out, and in parts exceeds the width of the Himalaya. The backbone of the system runs in a general west to east direction through 14 degrees of longitude, closely hugging the 36th parallel of north latitude. It is known by different names at different points, *e.g.*, the Kwen Lun, the Arka (or Akka) Tagh, the Bokalik Tagh, etc. About the 83rd meridian a northern branch, known as the Altyn (or Astyn) Tagh, curves north-eastward from the main water-parting, enclosing between itself and the main Kwen Lun extension a plateau of somewhat less elevation than the Chang Tang, but of similar aspect. The Altyn Tagh assumes a more easterly course after crossing the 89th degree of east longitude and eventually links up with the Nan Shan on the Kan-su borders. The southern, or main, branch, to which Sven Hedin has given the name of Arka Tagh, is a continuous range of high, rugged, and snow-clad mountains. From about the 83rd to the 87th degree of east longitude it has not yet been traversed, but the observations of Prejevalski, Sven Hedin, Grenard, Deasy, Stein, and others, have shown the range to maintain a high altitude throughout, and it is, without doubt, one of the highest mountain ranges on the face of the globe.

Numerous rivers of more or less importance rise in the Kwen Lun moun-

## The Rivers of the Kwen Lun.

tains, and the tributaries which form their sources constitute the only feasible approaches to the Tibetan plateau. The Khotan river breaks the continuity of the chain in its western section, rising in the north-east corner of the Aksai Chain or white Desert, south of Polu. The Kiria river also rises near Polu, and its five sources form lines of approach to the Kwen Lun at this point. Further east, the Tolan Khoja valley affords a gradual ascent to the Tibetan plateau. The Aksu and Kara Muren rise on the northern slopes of the Arka



Tagh, and the Cherchen river on the subordinate plateau supported between the Altyn Tagh and Arka Tagh. This plateau comprises the lake depressions of Achik Kul and Aiag Kum Kul, with their muddy flats and treacherous marshes. It is separated from the Tarim basin by a series of approximately parallel ranges, — the Kalta Alagan (Kalta's Hunting Ground), the Ara Tagh (Middle Chain), the Chimen Tagh, the Illyo Chimen, the Akato Tagh, and, furthest north, the Altyn Tagh.

The northern skirts of the Altyn Tagh rise gradually from the sand-dunes of the Tarim basin, the desert itself sloping appreciably from the level of the river. These outlying undulations are barren and desolate in the extreme, without a single blade of grass or other sign of life, — nothing but gravel and sand, thinly scattered over a soil as hard as asphalt. At first the ascent is imperceptible, but soon the ground becomes broken, and low hills of gravel, shingle, sand, and clay are reached. The only approaches to the heights above are the deep and narrow courses of mountain streams, and, though well-defined tracks, frequented by the wandering hunters of this region, are sometimes found to follow these glens, their rocky beds are often the only road. The streams themselves are frequently dry, but oases occur in this barren region, where vegetation in abundance, chiefly tamarisk, grass, and *kamish*, is found. In winter the streams become choked with ice, and the pathway more precarious. By these routes the ascent of the Altyn Tagh can be accomplished by small bodies of men with a limited following of transport, but the approach to the actual summit is long and desolate. Easy passes are found at intervals.

Between the Altyn Tagh and the Akato Tagh, (the next parallel ridge), lies a broad desert valley, with neither water nor grazing, though the *teresken* shrubs furnish a plentiful supply of fuel.

The Akato Tagh is unlike any other mountain system of northern Tibet in that it consists of an inextricable chaos of rounded domes and flattened tops of argillaceous rock. Its southern flank is a repetition of the northern flank of the Altyn Tagh, — a hard, gravelly slope descends gradually to a broad valley, running from east to west, and fenced in on the south by another parallel ridge, the Chimen Tagh. Westwards, the Illyo Chimen forms a continuation in echelon of the Akato Tagh, and is crowned with perpetual snow. Through the Chimen Valley run several streams, which empty themselves into the salt lake of Gass Kul, a large sheet of water on the borders of Tsaidam, surrounded by treacherous marshes. The Chimen Tagh differs somewhat from the preceding parallel ridges, in that it has a copious precipitation, with a resulting abundance of vegetation. The chief pass over the crest stands at 14,007 feet, and the latitudinal valley below, which is bounded on the south by the Ara Tagh, (the next parallel ridge), lies at an altitude of some 13,700 feet. The Chimen Valley has an elevation of only 9,700 feet, and the relative heights of these two valleys strikingly illustrate the step-like structure of the Kwen Lun system. Viewed from the north, the Chimen Tagh presents the appearance of a gigantic mountain chain; from the south, it has a quite insignificant appearance. The Ara Tagh is crossed at a height of about 14,300 feet, and to the south of it lies the Kalta Alagan. This range is the immediate northern escarpment of the subsidiary plateau contained in the heart of the Kwen Lun system. The northern portion of this plateau is abundantly fertile, for an unbroken succession of marshes, morasses and pools, surrounded by luxuriant grass, and linked together



by small channels, lies along the southern foot of the Kalta Alagan. In the west lies the salt lake of Aiag Kum Kul, and further to the south-west that of Achik Kul.

The ascent of the Arka Tagh itself, the culminative range of this series of parallel ridges, is a weary process of ascent and descent over subsidiary spurs and passes, and through winding glens and gorges. Water is found in some of these glens, but the stream-beds, which form the only path-ways, are strewn with slaty debris, and transport animals can only move with difficulty. The final ascent is precipitous, but the actual passes over the crest line are reported to be generally easy. The southern face of the Arka Tagh presents a gentle slope to one of those broad latitudinal valleys, barren of all signs of vegetation or organic life, which are so conspicuous a feature of the Kwen Lun system.

Such are the main features of the great mountain barrier which forms the northern escarpment of the Tibetan plateau. Piled up, ridge upon ridge, these parallel walls constitute in their very orographical design an almost impassable obstacle to northern aggression, and, when combined with a sterility which has cost small parties of explorers the lives of some of their followers and of half their transport animals, the obstacle may be deemed insuperable for the movement of armies. Nor are the above the sole impediments to the movement of troops among these mountains. In a climate in which terrific storms of wind, snow, hail, and rain occur with almost diurnal regularity, shelter is absolutely non-existent. "Those who have never been in one of those storms", writes Dr. Sven Hedin, "can form no conception of what it is like. It is as though the entire volume of the atmosphere were concentrated into this great trough of the earth's surface and forced through it like a roaring tide. The clouds drove overhead at racing speed; drift-sand, even small stones, were caught up from the ground and hurled point blank into our faces. In the more exposed positions the wind had a velocity of more than 55½ miles an hour." A further extract from the same traveller's experiences may convey some idea of the difficulties of moving transport in these regions. "The caravan was dying," he writes, "and we breasted the new slopes at a funereal pace. The ascent grew steeper. We passed an endless number of ravines and passes, where we had to make frequent halts to let the animals recover breath. A man came to tell me that one of the horses could go no further: No sooner was it slaughtered than down went another never to rise again. This miserable pass would have been a mere trifle for animals in good condition, but before we surmounted it we lost two more horses. And when we did at last surmount it, the prospect was not a whit more encouraging. To right and left were glacier-arms; in front of us a chaos of mountains. Just over the top we halted in a recess in the rocks, though there was not a scrap of firing or food for the animals. Next morning one of the horses was lying dead, his body stiffened with frost. It was evident that we could not go on long in this fashion. Our marches were growing shorter and shorter, and the animals were getting utterly exhausted and worn out." It may be added that this expedition was carried out before the winter had set in.

While the Altyn Tagh maintains its individuality as a mountain chain in the Humboldt range, which forms its eastern extension, the Arka Tagh loses its identity after crossing the 93rd meridian. Here it becomes split up into a number of parallel chains which, running south-east and then south, converge towards that intricate maze of mountains on the south-east frontier, where the Chinese, Himalayan, and Tibetan mountain systems appear to become inextricably intermingled.



The Nan Shan mountain system comprises a series of approximately parallel ranges, overlooking the Tsaidam marshes to the south-west and the Alashan desert to the north-east.

#### The Nan Shan.

Numerous rivers rise on the slopes of these ranges, emptying themselves for the most part into the numerous lakes with which the intervening valleys are studded. We are indebted chiefly to the Russian explorers Prjevalski, Kozloff and Roborovski for our information regarding the Nan Shan highlands, and the network of routes shown on the Russian maps of this region is ample evidence of the thoroughness with which the survey work has been carried out. The Nan Shan highlands, which cover 4 degrees of latitude and 10 degrees of longitude, consist of five or six parallel chains, each rising above the limits of perpetual snow. From south-west to north-east, the names of these ridges are the Bain Sarlik (also known in its western extension as the Innik-Ula and Ulan-udzar); the south Koko Nor (or Musketoff) mountains, — locally known under the different names of Beljin-ula, Bomin-ula, Tsaidamin-ula, and Kyakhtin-ula; the Ritter mountains (Dakhya-daban); the Sulei Shan (known in its northern and southern extensions as the Ye-ma-shan and Tsin-Shi-ting respectively); the Tholo-shan or Ma-ling shan; and the Momo shan, to which the name of Richtofen mountains has also been given, after the famous geographer.

The interior of Tibet is traversed by a series of parallel ranges of which we have as yet only scanty information.

#### The ranges of the interior.

They have been crossed at different points by the small band of explorers who have penetrated Tibet from the north, — de Rhins, Sven Hedin, Bonvalot, Littledale, Rockhill, and others, — and the only data which we possess as to the continuity of these ranges are the records of the few latitudinal journeys across the Tibetan plateau. Most explorers emphasise the fact that the interior ranges of Tibet and their intermediate troughs trend from west to east. Practically the whole of Wellby's journey was carried out in one continuous trough; Nain Singh followed another; Bower, another; and Sven Hedin a fourth. The latter's latest journey along his so-called\* Trans-Himalaya has furnished almost indisputable proof of the continuity of all these ridges and intervening valleys.

On the west of Tibet we find between the Kailas and the Kwen Lun systems two primary ranges, the Karakoram and the Aghil; on the east we find five, — the Lani, the Ninchinthangla, the Tangla, the Dungbura and the Kokoshili. Two ranges are thus known to enter Tibet from the west, and five are known to issue from it on the east; how the two become five, and whether there are not more than five, are points which are still unsolved geographical problems; but the weight of evidence goes to prove that the primary ranges of the interior of Tibet spread out towards the east as do the fingers of the hand, and that they are continuous from west to east, just as the two great border ranges are continuous, — the Kwen Lun and the Himalaya.

When Wellby travelled from west to east in 1896, he marched south of

#### The Kokoshili.

the Kokoshili, while Sven Hedin has explored the long trough to the north of that range. In longitude  $94^{\circ} 20'$  the Kokoshili is cut through by a northern affluent of the Yangtse, but east of the gorge it becomes, under the name of Baian Kara Ula, the water-parting between the Hoang Ho and the

\* The "Hedin Mountains."

† It must be confessed that Littledale's evidence does not support this view. During a journey from the Kwen Lun (lat.  $36^{\circ} 5'$ ) to the Tengri Nor (lat.  $30^{\circ} 40'$ ) "we never," he writes, "saw a single continuous mountain chain till we came to the Ninchinthangla."



Yangtse. Wellby's "Abrupt" peak, and the "King Oscar" peak of Sven Hedin, belong to this range.

The Tangla range forms the water-parting in Tibet between the Yangtse and the Salween, and Prjevalski traced an affluent of the former almost to its source in this range at a height of 16,400 feet. De Lesdain claims to have traced this affluent to its actual source, but his heights and distances are unreliable.

The Ninchinthangla forms the water-parting between the Brahmaputra and the closed basin of Tibet, and may therefore be considered as the eastern extension of Sven Hedin's Trans-Himalayan range. The Littledales crossed this range by the Go-ring pass (19,587 feet), and the explorer Nain Singh crossed it by the Khalamba Pass (17,200 feet). The range has also been viewed by Ryder, Wood, and Rawling during their journey to Gartok in 1904, while O'Connor expresses his strong suspicion of its existence in his Report of 1903. In 1908 Sven Hedin proved that the Ninchinthangla links up with the Kailas range to the west, and it is for the whole of this mountain system that he suggested the name of \* Trans-Himalaya.

According to Sven Hedin, the average height of the passes over the Hedin Mountains is some 1,600 feet higher than in the Himalaya, and about the same as in the Karakoram and Arka Tagh. He discovered that this mass of mountains consist not of one chain, but of many, quite independent of each other. It possesses no summits comparable in height with those of the Himalaya, but several complex peaks covered with eternal snow and glaciers. Otherwise it is comparatively flat, and the gigantic tops to be found in this part of Tibet are either to the north or to the south of the chain. It has hitherto been generally supposed that the range is cut through in places by rivers from the north, and for this reason cannot be said to form the water-parting between the Brahmaputra and the Tibetan lake area. But Sven Hedin emphatically asserts that, though the Kailas, which is not the true watershed, is cut through in this way, no stream which rises north of the main chain finds its way into the Brahmaputra. Near Manasarowar, the Kailas range is strongly developed, and the ranges to the south expand here in sympathy. Within one region are to be found the culminating peaks of four different ranges, Kailas, Gurla Mandhata, Kamet, and Nanda Devi. From Manasarowar the Kailas range can be traced along the north bank of the Indus as far as the Pangong Tso. In longitude 80° it is intersected by the Singhzi, the eastern branch of the Indus. On reaching the Pangong Tso it appears to end in the peak of Sajum (20,018 feet), but further west it can be traced again, and then forms the water-parting between the Shyok on the north and the Nubra on the south.

Approximately parallel to the Kailas range is the Ladakh range. In

The Ladakh range. rear of the Assam Himalaya, this range forms the water-parting between the Brahmaputra of Tibet and the Brahmaputra of Assam. Westwards from the Nyang basin, as far as Manasarowar, it is the water-parting of the Brahmaputra, the drainage of its southern slopes passing across the Great Himalaya into India. For 200 miles west of the Nyang basin the Ladakh range and the Great Himalaya run parallel, and enclose between them the long trough of the Arun river. In rear of the bifurcation of the Great Himalayan range at Dhaulagiri the Ladakh range increases in elevation, and the

\* It has been decided to name this range "The Hedin Mountains."



trough separating it from the Great Himalaya becomes less distinct. Behind the Karnali basin the range is strongly developed, culminating south of Manasarowar in Gurla Mandhata; but immediately west of this great peak, the continuation of the range is not distinct. West of Manasarowar, it follows the Indus, and its relations to this river are curious. For the first 80 miles of its course the Indus flows along the trough north of the Ladakh range and parallel to it; near Thangla, north of Hanle, it bends at right angles, cuts across the range, and forsakes the trough it has been occupying. It now flows for 300 miles along the south flank of the Ladakh range, and then, shortly before its junction with the Shyok, passes back across the range to its original side. It remains on the north side for 100 miles, and then cuts across the range for the third time. The following are some of the more important passes on the Ladakh range:—Harpo (16,785), Lasirmou (16,900), Khardung (17,600), Medosi (17,700), No (16,600) and Kura (17,900).

The southernmost range of Tibet (excluding the Great Himalaya) is the

#### The Zaskar range.

Zaskar range. This appears to bifurcate from the Great Himalaya near Nampa, but the exact position of the bifurcation is not known. The Zaskar range, whose continuity is open to some doubt, forms the water-parting between the Kumaon Himalaya and Tibet, and is crossed by a number of well-known passes,—the Lippu Lekh, the Untadhura, the Niti, etc.,—all of which will be found fully described in Chapter V. The range culminates in the peak of Kamet (25,447 feet). Near the point of its intersection by the Sutlej the twin peaks of Leo Pargial (22,210 feet) rise from it, and in the basin of the Spiti river it carries the peak of Shilla (23,050 feet).

The following table shows the height and position of all known peaks in the

#### The high peaks of Tibet.

interior of Tibet (excluding those of the Himalaya, Karakoram, and Kwen Lun ranges) exceeding 22,000 feet:—

Range.	Name.	Height.	Latitude.	Longitude.	Authority.
Zaskar . . .	Leo Pargial S	22,170	31 53 5	78 44 5	G. T. S.
	Leo Pargial N	22,210	31 54 8	78 44 39	
	Kamet	25,447	30 55 13	79 35 37	
Ladakh . . .	Gurla Mandhata	25,355	30 26 18	81 17 57	G. T. S. Wood Ryder
	W. 144	22,032	30 7 26	82 11 17	
	W. 154	22,492	29 45 29	82 45 0	
	Nojinkang Sang	23,600	28 57 2	90 11 1	
Kailas . . .	Kailas	22,028	31 4 2	81 18 50	G. T. S. Wood
	W. 134	23,150	29 50 4	84 36 39	
Range unknown; . . . possibly continuation of Karakoram	Aling Kangri	24,000	32 46 0	81 2 0	Nain Singh
	Ning Kangri	..	32 15 0	83 0 0	
	Shialchikang Jang	Very high	31 45 0	84 45 0	
	Targot Yap	25,000	30 40 0	86 15 0	
	Gyakharma	22,800	30 50 0	88 30 0	
Ninchinthangla . . . (eastern extension of Kailas)	Jhomogangar	Very high	29 50 0	89 50 0	A. K. Ryder
	R. 210	22,950	29 54 7	90 2 3	
	R. 217	23,255	30 22 17	90 35 19	
Kokoshili . . .	Abrupt Peak	..	35 30 0	82 30 0	Wellby Svens Hedin
	Ullug Mustagh	24,000	36 30 0	87 20 0	
	King Oscar Peak	..	35 30 0	87 40 0	

N.B.—The altitudes obtained by Sven Hedin on his latest journey were not available at the time of writing and have not been included. The Table is probably far from complete in other respects.



## RIVERS.

The head-waters of the Indus consist of three main streams which rise on the slopes of the Kailas range and form a junction with each other a few miles south of Tashigong at the intersection of  $32^{\circ} 36'$  north latitude with  $79^{\circ} 45''$  east longitude. The northernmost of these streams, — the Singhzi Chu, — is the longest, and is recognised as the actual source of the Indus. It rises on the northern slopes of Kailas, and, flowing in a northerly direction, is crossed at the village of Chu-kang, in the Bong-ba district, by the trade route between Gartok and the gold-fields of Thok Jalung. At this point the Indus is fordable, with a firm, stony bed, and flows in a narrow, enclosed valley. Leaving Chukang the river curves westward, and is joined at the 80th meridian by the Lang Chu, the central stream, which rises near the Gintu pass twenty miles north-east of Gartok. It is a small, easily forded stream, 10 to 15 feet in breadth. Fifteen miles below its junction with the Lang Chu, the Indus receives the Gartang Chu. This, the third of the three head-streams, rises near the Jerko pass on the route between Gartok and Manasarowar. It broadens out in places to as much as 250 paces, but is only 1 to 2 feet deep, and easily fordable everywhere. Gartok itself is situated a few miles from its right bank. A path follows the course of the stream through Gargunsa, the winter capital of Nari Khorsum, to Tashigong, where the three head-waters of the Indus are united in one stream. Twenty miles below Tashigong the village of Demchok is situated on the left bank, and another 20 miles carries the Indus over the Kashmir border. By this time it has increased considerably in volume and rapidity, and though it is only fordable with difficulty below Demchok, no bridges exist. From the source of the Indus to Pitak, opposite Leh, the distance is 400 miles, and the fall of the river 6,000 feet or 15 feet per mile; but over a considerable length of its course in Tibet the fall is hardly more than 3 feet per mile.

The Sutlej (known to Tibetans as the Lang Chin Kamba, or "bull's mouth", from the violence of its stream) no longer flows from Rakhas Tal, and the channel which once connected it with this lake is now dry. Water, however, is still found in this channel at intervals; and, as native reports all agree that there is an underground flow of water throughout its entire length, which occasionally appears on the surface, it is possible that the bed is flooded during a season of heavy rain. The actual source of the Sutlej is at the Monastery of Dalju, where there is a large spring. Below Dalju the first place of importance on the river banks is Tirthapuri, noted for its hot sulphur springs. Here there is a strong flow of water in the river-bed, but it is easily fordable. At Khyungling, some 20 miles below Tirthapuri, the river is generally unfordable during the summer months, but about September it is reported as fordable in places, even by infantry, and is easily bridgeable. In winter it can be crossed by the ice. At Khyungling itself the Sutlej forces its way through a narrow, rocky cleft, and here the span for a bridge would be only 40 feet. Opposite the village a small, wooden cantilever bridge, resting on stone supports, spans the stream. It is a rickety structure, used only by men and sheep, ponies and yaks being driven across the river some hundred yards further down. Twelve miles below Khyungling are other admirable sites for bridges: here the whole volume of the stream is compressed into a narrow passage only 20 feet wide, the gorge being continuous for a distance of three miles. It must always be remembered, however, that this region is a treeless one, and bridging material must accompany a force operating from India. The next bridge is  $2\frac{1}{2}$  miles



above To-ling, the ancient capital of the kings of Western Tibet. The bridge is of wood, cantilever pattern, but, as the span is greater than the beams can stand, it is supported by two suspension chains. These chains are made of 6 inch to 12 inch links of 1 inch iron, and are 96 feet long. At the ends of each are three rings, one yard apart, through which pass wooden beams, the ends of the latter being let into the masonry. From pier to pier the total span is 75 feet, and the roadway is about 60 feet above the stream. The approaches to the bridge are straight and level, and pass under stone arches 5 feet 6 inches wide and 7 feet high. The roadway (of stout planks) is 4 feet 6 inches between the ribands. At To-ling the Sutlej curves due west, passing Chabrang on its left bank. Onwards it presents a formidable obstacle to movement. The bed of the river lies about 1,000 feet below the crest of the gully through which it flows, bounded on either side by precipitous lime-stone cliffs. Forcing its way through a vast accumulation of deposits, it pierces the Himalaya by a gorge near Shipki, with mountains rising on either side to 20,000 feet. Directly below Shipki a rope bridge spans the river, but the approaches are bad and the bridge insecure for more than one person at a time.

Generally speaking the valley of the Sutlej is well-populated, in spite of the inhospitable nature of the country. It is easily traversable from north to south (or *vice versa*), for the beds of the numerous *nalas* which lead into the main river are level and firm; but on account of their great depth they are a serious obstacle to free movement from east to west. In many places these ravines have almost precipitous sides, with a drop of from 4,000 to 5,000 feet.

The Karnali (or Gogra), one of the affluents of the Ganges, has a Tibetan course of some 60 miles. It rises among

#### The Karnali.

the hills south-west of Rakhas Tal and flows in a south-easterly direction, crossing the Nepal frontier a few miles below Khojarnath. Takla-kot is the most important village on its banks. It is fordable throughout its Tibetan course, and its valley is one of the most fertile in southern Tibet.

The Brahmaputra, or Tsang-po, is the great water-way of Tibet, having a course of some 1,300 miles through Tibetan

#### The Tsang-po.

territory. It flows through a remarkable valley, which traverses nearly the whole expanse of southern Tibet, draining large tracts of mountainous country to its north and south. The most remarkable feature of the Brahmaputra in Tibet is the tendency of its feeders to flow in a direction opposite to that of the trunk river. If but one feeder had been observed to take a course contrary to that of the river, the phenomenon might have been attributed to some local topographical peculiarity; but when all the principal affluents of a long section of the river are found to follow the same contrary course, it becomes evident that the Brahmaputra must at no distant time have flowed from east to west in Tibet, and that its tributaries were developed during that period of its history. The principal Tibetan tributaries that may be observed to flow against the present river are:—

- the Kyi, or Lhasa, river;
- the Nyang (joining the Tsang-po at Shigatse);
- the Rang;
- the Shang.

Many smaller feeders also adopt contrary courses. The most recent maps show that shortly before their junction with the Tsang-po, these tributaries are beginning to bend in their courses, and to turn towards the present



direction of the Brahmaputra's flow ; and in their future development they will doubtless adapt themselves to the altered conditions.

The Brahmaputra is known by different names in different districts. During the first 200 miles of its course it still retains the ancient Tibetan title of Tam-chok kha-bab, — the Tam-chok being a fabulous steed petrified in Lake Manasarowar, from whose rocky mouth the river is supposed to gush forth. Mar-tsang is another name used in its upper course. Further east the names Nari Tsang-po and Yari Mar-stang appear, while below Shigatse it acquires the terms most commonly employed in the civilised districts, — Chang-chu and Yeru Tsang-po. These names are maintained throughout central and south-eastern Tibet, until in the Miri and Abor hills it becomes the Dihang or Dihong, and, on entering British territory, the Brahmaputra.

Many explorers have claimed to have discovered the source of the Brahmaputra, but it has been left to Sven Hedin to clear the matter up once and for all. He writes :—"Even since Nain Singh's time, and even now, after the English Expedition, the river Mayum-chu is considered to be the source of the Brahmaputra. For my part I have never believed this, and I have always considered it impossible that so large a river as the Brahmaputra should have its source in a low ridge in a longitudinal valley. It was none too easy for the members of the English expedition to solve the problem, as they travelled in winter when the land was covered with snow and the rivers were frozen over. For me it was far easier, and I measured with instruments all the rivers which go to form the Brahmaputra, and followed by far the largest of them to the spot where it was formed by the melting snow and ice from these gigantic glaciers flowing into the enormous glacis of the Himalayas, Kubi-gangri. From this point the stream flows down to Kubi Tsang-po, — that is, the Brahmaputra."

Eighteen miles from its source the valley opens out to some eight miles in breadth, the stream flowing in a rocky channel some 70 feet across. Here a pathway leads down from the Miriam (or Mayum) Pass towards the river, and for some distance keeps laterally along the northern side of the valley without descending to the bank. It touches the river at Lak-tsang (or Tram-tsang), and here the Tsang-po has a width of 95 feet, a depth of 1 foot, and a current of 2 miles an hour. The Neo-chu, a tributary from the north fordable at all seasons, enters the main stream at Nak-chak and Trak-sum, and the Tsa-chu Tsang-po, a river not more than 2 feet in depth, is received about the 84th meridian. A few miles further down is the town of Tra-dum. Here a southerly route to Saka crosses the river by an easy ford. The Sho-to Tsang-po, which enters the Brahmaputra a few miles below Bela Gompa, is fordable except in winter, when it is crossed by the ice. The main stream is crossed at Shung-gru-tru-ga in a skin-boat kept by the villagers, and is here 60 yards wide.

Two hundred and fifty miles from its source the Tsang-po receives its first great tributary, — the Char-ta Tsang-po, which in size fully equals that of the main water-way. It is, however, easily fordable at most seasons of the year. No bridges or boats exist.

After passing the 86th meridian the Tsang-po takes a due easterly course and enters the region of cultivation. The character of the river-bed changes considerably : at times it is confined in narrow gorges between precipitous cliffs, at others it lies in open, level plains. The main path-way crosses to the right bank at Le-lung, but so narrow are the gorges that it sometimes has to make a detour of several miles to the south. One mile above Le-lung is a



ferry owned and worked by the lamas of that place. The boat is of rude construction but is capable of carrying seven ponies, ten men, and fifteen maunds of baggage each trip. On the right bank of the river is a rough stone pier from which the loads are lifted into the boat. Another ferry is worked at Sheru, a few miles further down.

The next place of importance is Lhatse, and here the Tsang-po takes a north-easterly bend. One mile below the Jong, which lies sheer over the river, there is a ferry consisting of wooden boats and three small skin rafts. Each boat can carry eight ponies together with their loads. Half a mile further down stream an iron bridge spans the river. The chains are 200 feet long and are supported between two high stone piers, a precarious foot-way of wood and rope being suspended between them. Two and a half miles up stream from Lhatse there is another bridge of similar pattern. From Lhatse there is a regular system of boat traffic to Shigatse, utilised for passengers as well as for goods and live-stock. Ten miles beyond Pin-dzo-ling there is an iron suspension bridge consisting of two parallel chains, suspending between them a net of rope which forms the foot-way for passengers. The chains are each 95 yards long, and are made of locally-forged  $\frac{3}{4}$  inch iron links from 9 to 11 inches long. On the right bank of the river the chain is made fast round a prominent rock, while on the left bank it is buried deep into the ground. The bridge was constructed before the memory of present inhabitants, but is still in good condition. At Pin-dzo-ling itself another bridge of similar pattern, but with 200-foot chains, spans the river.

Between Pin-dzo-ling and Shigatse the Shap-chu tributary enters the Tsang-po. It has a width of 100 feet and is about  $2\frac{1}{2}$  feet deep. The main road between Shigatse and Lhatse crosses it by a ford passable at all seasons. No bridges now span the river, but the piers of an old one are still standing at the village of Shap-ge-ding. Shigatse stands on the Nyang-chu, one of the most important tributaries of the Tsang-po, draining as it does the whole of southern Tibet bordering in Sikkim and western Bhutan. The bridge which once spanned it at Pen-nang has now been swept away, but a substantially built bridge of eight stone piers crosses it  $2\frac{1}{4}$  miles below Gyantse. The roadway of this bridge rests on stout timber about 16 feet wide, and is of sufficient strength to bear field guns fully horsed. At its junction with the Nyang-chu, the Tsang-po has travelled 550 miles, and it now assumes the form of the larger Indian rivers. It flows in several channels separated by long bars of sand, and often spreads out into broad shallow reaches some two miles across. Its principal channel is, however, narrow, deep, and never fordable.

The high-road to Lhasa from the Khamba La strikes the Tsang-po some seven miles north-west of that pass, the point of contact being a little west of the mouth of the Kyi-chu. The crossing at this point will be found described in Chapter V. Great reaches of sand lie in the river-bed, but the waters are so broad that the violent wind, very prevalent in the Tsang-po valley, raises frequent storms, which make the passage across dangerous. The powerful eddies are also another danger, as we found to our cost in 1904.\* Across the river is the fort of Chusul, whence a systematic service of large hide boats is maintained towards Chetang, the first stage being the notable wool and cloth mart of Kyi-desho. At Kyi-desho the Tsang-po is described as flowing in a single stream 800 yards broad, excessively deep, and teeming with fish. East of Tib-chu, the affluent on which the cloth mart and port is built,

\* It was at this point that Major Bretherton, Chief Supply and Transport Officer to the Tibet Mission Force, lost his life.



the river flows due east. At Chetang, the Yar-lung, a tributary from the south, enters the main stream, and three miles below the town a ferry is located at Nya-ko-drukha.

In the district of Kongbo, the Tsang-po takes a sudden bend to the N. N. E. This run continues for about 70 miles, when it pursues a more north-easterly course for about 50 miles and gains its northernmost apex. This point in the river's course is the chief land-mark in the whole of its run in Tibet; for now it starts on that sudden dive to the south which carries it out of the country. At this point the river is very narrow, and at Gya-la-dzong, where the level above the sea has sunk to 8,000 feet, it is said to be only 110 yards in width. A cascade of 100 feet in depth occurs at this point. Further south, our knowledge of the river's course is very scanty. Below the confluence of the Nya-grong-chu from Za-yul, no explorer has succeeded in penetrating; and all we know is that the river pursues a generally S. S. E. course, issuing from the mountains as the Dihang about the 28th parallel of north latitude.

The Hoang Ho, or Yellow River of China, is known in its upper course as the Ma-chu by Tibetans and as Solowa by the Mongols. Another Mongolian name is the Altar-gol, but this is not used till the river has crossed the 34th parallel of north latitude, when the Chinese name of Hoang Ho also is first heard. The river proper may be said to commence when it issues from the Oring Nor. This lake is connected with the Tsaring Nor by a deep and narrow channel. Into the Tsaring Nor flow a number of small streams, of which the most westerly is also named the Ma-chu; this latter stream may accordingly be termed the actual source of the Yellow River. It rises on the northern slopes of the Baian-kara-ula between the 95th and 96th meridians and flows into the Tsaring Nor through a swamp known as the Karma-tang (or Plain of Stars). The high-road between Si-ning and Lhasa crosses the Karma-tang; and here the Ma-chu flows in a broad valley of sand and gravel over a mile in width, but the stream itself is not more than 50 yards wide, very shallow, and quite slow. Issuing from the north of the Oring Nor, the Ma-chu describes a remarkable loop round the Amne-machir chain, at one time pursuing a course parallel to its upper reaches but in an opposite direction. After crossing the 36th parallel south of the Koko Nor, it takes an easterly direction, and passes out of Tibetan territory over the Kan-su border.

The valley of the Yellow River in Tibet is not highly cultivated, nor is it very productive, the rainfall being insufficient and the amount of snow unusually small. In Tibetan territory the river presents no very serious obstacle to movement, except when in flood: even as far east as its confluence with the Si-ning Ho, it is only 100 yards broad, and very shallow and sluggish. No detailed information is available regarding the locality of bridges, but they are said to exist at intervals and to be built on the cantilever system. Rafts, made of inflated ox-hides and planks, are used on the Hoang Ho by merchants and traders for the carriage of their goods down stream.

The head-waters of the Yangtse Kiang drain a great desert area lying between the Kwen Lun and the Tangla mountains. The most northerly of these is the Chu-mar, known to the Mongols as the Nap-chitai-ulen. This stream rises about the 91st meridian on the northern slopes of the west Koko-shili range. Its early course was discovered and followed for some distance in 1896 by Wellby, who described it as flowing through sandy, grassy banks,



sometimes deep, and with a swift current. At Di-chu-rab-dun (where a ferry is located) the Chu-mar is joined by the Mur-ussa, which is, perhaps, the main feeder of the Yangtse Kiang. This stream rises somewhere among the northern spurs of the Tangla range. The Tok-tonai-ulan-muren is another important feeder, and joins the Mur-ussa about the 34th parallel. It rises in the heart of the Chang Tang among the hills bordering the series of unnamed lakes which were the southernmost point of Sven Hedin's journey in 1900. Rockhill crossed the Tok-tonai-ulan-muren in his second journey, and describes it as a good-sized river, flowing in a number of channels, and difficult to ford. From Di-chu-rab-dun the united stream flows in a generally S. E. direction under various names. To the Tibetans it is known as the Di-chu (or "Blue River"), Dre-chu, and Ndu-chu; to the Mongols as Mur-ussa or Murus (or "Tortuous River"); and further south it is known under the Chinese names of Kin-sha-kiang (or "River of Golden Sandy"), Yangtse Kiang, and Tung-tien Ho. For some distance it flows approximately parallel to the Ja Chu, one of its largest tributaries, passing through a wild and mountainous country with hills rising 2,000 and 3,000 feet on either side. Near Jyekundo it is described as a beautifully blue river, 150 yards wide and 20 feet deep, flowing swiftly between high, bare mountains of a reddish colour. The current here is not so swift as to prevent its being frozen over in winter, when it can be crossed by the ice. Coracles ply at intervals; but, as far as we know, no bridges exist. At about the 99th meridian it curves gradually southwards and passes through the State of Derge (which maintains a ferry service at Drenda). At the village of Dabana it is crossed by the great high-road between Peking and Lhasa, which here connects Batang with Gartok. A regular ferry service is maintained at this point (*vide* Chapter V).

The usual type of boat used on the Yangtse Kiang is the hide coracle, either worked singly or in a pair lashed together. It is a frail construction, consisting of nothing more than yak-hides sewn together and stretched over a frame-work of bent twigs. It is worked by a man sitting in the bow, who paddles diagonally across the stream with a short oar. A journey in a coracle when the river is in flood or in a heavy wind is rather a hazardous undertaking, and on such occasions the ferry services over the Yangtse are generally suspended.

The two most important Tibetan affluents of the Yangtse Kiang are the

Yalung Kiang and the Tung Ho. The  
The Yalung.                      former, known in its upper course as the

Ja-chu and lower down as the Nag-chu, rises on the southern slopes of the Baian-tukma mountains, a continuation of the Baian-Kara-ula, and flows first south-east and then south past the town of Kanze. It has been crossed near this place by Rockhill, who describes it as flowing through a rich and fertile valley, well wooded and thickly populated. The river, when he crossed it, was about 75 yards wide, clear, very swift, and deep. Continuing south, it is joined by an important tributary, the Nya-chu, on the left bank, and after passing Nag-chu-ka on the high road to Ta-tsien-lu, it joins the Yangtse on the northern frontiers of Yun-nan.

The Tung Ho is known by various names. From Kiating-Fu to Fu-lin

it is known as the Tung Ho; from Fu-lin to  
The Tung Ho.                      Romei-chango (the northernmost village of  
the State of Chagla) as the Ta Fu; and from Romei-Chango to Choskia (the  
principal village of the Mantzu State of that name) as the Ta-kin Ho. North  
of Choskia it is known for some distance as the Chos river, and further north  
receives its names from the various independent states through which it



flows. It rises near the borders of Ching Hai and flows through the entire region of Meniak. At Ju-chai it is joined by the Somo Ho, and at Romei-chango by the Sin-kai Ho, on which stands the important village of Mon-King. Passing to the east of Ta-tsien-lu, the Tung Ho takes an abrupt eastward bend at Tze-ta-ti, and eventually joins the Min at Kiating-Fu. At Romei-Chango is a remarkable suspension bridge. Seventeen great bamboo cables span at least 300 feet without a single stay; eleven of these, on which thin planks are loosely scattered, form the footway, and three give some protection on either side. The cables gradually slacken, and, as the traffic across is considerable, the dip and oscillation are often very great. It is the duty of the local natives to tighten the stanchions twice a year.

Only the upper course of the Tung Ho can be said to lie in Tibet, but as far south as Ta-tsien-lu it flows through that part of the Chinese province of Ssu-chaun which is peopled by tribes of Mantzu origin and may in this respect be considered a Tibetan river. The coracles of the Tung Ho are some 4 feet in diameter, 3 feet deep, and about 70 lbs. in weight. It is a remarkable fact that these hide-ferries are an almost infallible herald of non-Chinese tribes, and where they are found in districts with every indication of a Chinese settlement they will form a clue which, if followed up, will invariably force the admission of Mantzu parentage.

South of the Yangtse Kiang rises the Mekong. Its sources appear to lie among the eastern slopes of the Tangla range, and its principal feeders are the Dze-chu, the Dza-chu and the Nomu-chu. The Dza-chu has been followed by de Rhins from its source as far as Tachi Gumpa, below which point he describes it as altogether impracticable. To the west of Gartok it has been crossed by a native explorer, who estimated the width as 130 paces, the elevation being 9,400 feet. Hence the river is known as the Lan-tsang Kiang. It crosses the frontier of Yun-nan at about 28° north latitude.

The principal feeders of the Salween appear to spring from the southern flanks of the Tangla range and from the hills which separate the basins of the Tengri Nor and the Tsang-po. Its early course passes through regions which have not yet been visited by explorers; in this portion the river is known as the Ngu-chu or Giama-Ngu-chu. At about 29° north latitude the stream has been crossed by a native explorer who describes it as 200 paces wide, deep, and rapid, and gives the elevation of the ferry as 7,160 feet. Further south the On-kio, or Oi-chu, joins the left bank, and the river, now known as the Lon-tse-kiang, continues to flow southward until it leaves Tibetan territory at about the 28th parallel.

In the extreme south-east corner of Tibet is a river which receives its name from the district through which it flows.

**The Zayul chu.** The Za-yul chu rises about the 98th meridian among the hills which overlook the western bank of the Salween. Near Rima it is joined by the Rong-thod-chu, and the combined streams cut through the southern range of hills which separate Za-yul from the Mishmi country. On entering British territory the river is known as the Lohit Brahmaputra, and joins the Brahmaputra proper at Sadya in Assam. The two head-waters of the Lohit drain the area between the basins of the Salween and the Tsang-po.

The rivers mentioned above comprise all the principal streams which take their rise in Tibetan territory, and it will be noticed that their sources are invariably to be found on or near the frontiers of the country, while the streams

**The Himalayan rivers.**



themselves radiate outwards to the surrounding plains. Numerous smaller streams remain to be briefly referred to. There are many tributaries of the Ganges which have their rise in Tibet, and force their way to the plains of India through the Great Himalayan range. Such rivers are the Karnali (already noted), the Gandak (in three main branches—the Kali, Buria, and Tursuli), the Sankosi, and the Arun. Of these the Arun is the largest and drains the largest tract of country. Its head-waters spread like a net over a wide area to the north of Sikkim and north-east of Nepal, and its sources approach to within a few miles of the Tsang-po. Its catchment area includes many important towns—Dingri, Tunki Jong, Khamba Jong, and others—and also the large lake of Tso-mo-tel-tung. Besides these Nepalese rivers there is the Lhobrak Tsang-po, whose feeders, after draining a large area of Tibet south of the Yamdrok and Tigu lakes, break through the Himalaya and flow southwards through eastern Bhutan and Assam to join the Brahmaputra as the Monas. East of Tigu Tso rises the Nia-chu or Kamla river, which flows south-east through an unknown country and emerges in Assam as the Subansiri.

Of the streams which flow northward from northern slopes of the Kwen Lun ridges, there is little to be said. The chief among them are the Khotan, Kiria, Nia, Tolan Khoja, Bostantograk, Moldja, and Kara-muren streams, which drain into the Takla Makan desert. Further east is the Cherchen-daria, whose feeders flow from the northern slopes of the Arka Tagh and force their way through the Tokus Davan into the Tarim basin. The remainder of the upland between the Altyn Tagh and Arka Tagh is self-contained, and drains into the Aiag-Kum-Kul and Achik Kul. The principal streams of the eastern Kwen Lun are the Batygantu and Otto Nairin Gol, which drain into the Tsaidam marshes; the Naichi Gol is also a considerable stream composed of two main branches (the Naichi Gol and the Shuga Gol) which drain the elevated region between the Kokoshili mountains and the lesser ranges to the north.

It should be also noted that the whole of the Chang Tang itself is a network of streams—some of considerable volume—which flow into one or other of the innumerable lakes with which the surface of the great plateau is studded. It would be impossible to enumerate these, nor do any of them possess any special interest. It appears, however, that the majority contain a considerable volume of water and constitute a serious obstacle to the movement of transport.

### LAKES.

One of the most remarkable features of the Tibetan plateau is the number of lakes which are scattered about its surface. Some of these are almost large enough to be termed inland seas, yet nearly all of them are maintained by the ordinary glacial drainage from the surrounding mountains.

In their general aspects, Tibetan lakes have certain peculiarities which are worthy of notice. Firstly, is to be noted the great altitude at which they occur. Secondly, they are (with few exceptions) emphatically salt-lakes. Potash, soda, and borax are found in such extensive deposits encrusted round the margin and in the waters themselves, that most of the lakes north of the central lateral chain are called by the Tibetans, not *Tso*, or "lake", but *Tsahka*



or "salt pit." It is probable, however, that the waters of these lakes are gradually losing their saline character. To take one example: Bower, encamped on the shores of the Aru Tso in 1891, speaks of the waters of that lake as "salt, of course, like nearly all the Tibetan lakes"; in 1897 Deasy reported that the water was "drinkable"; and in 1903 Rawling found that it was "fresh, without the least flavour of salt or soda." Similarly, most of the lakes are undergoing a rapid process of desiccation. The ancient shores can often be clearly distinguished as much as 200 feet above the present surface of the water. Another peculiarity is the system of hot springs which are almost always to be found near them; and it is remarkable that the geysers occur almost exclusively in close proximity to lakes, and are not to be found in other situations.

Salt lakes occur, generally speaking, north of the 31st parallel, and are confined for the most part to the tracts known to Tibetans as *Tang* districts. South of this latitude the soil is black, peaty, and non-saline, and the lakes are fresh. Our present knowledge seems to indicate that the salt lakes of Tibet lie in chains from west to east, with a southerly droop towards the east.

It is not proposed here to do more than mention the more important of the Tibetan lakes. The following table comprises those which present any special features of interest or are best known:—

Name.	Area in square miles.	Maximum length in miles.	Altitude above sea level.
Koko Nor . . . . .	1,630	67	10,700
Nam Tso . . . . .	950	53	15,190
Zilling Tso. . . . .	720	45	14,000
Dangra Yum Tso . . . . .	540	45	16,580
Yamdruk Tso . . . . .	340	44	14,350
Montcalm . . . . .	300	48	16,273
Kyaring Tso . . . . .	290	41	15,840
Kara Nor . . . . .	250	26	..
Nganzl Tso . . . . .	250	26	..
Oring Nor . . . . .	250	26	13,704
Naktsong Tso . . . . .	230	20	..
Panggong Tso . . . . .	230	98	13,930
Tsaring Nor . . . . .	220	26	13,704
Tossun Nor . . . . .	190	36	..
Dara Tso . . . . .	180	23	..
Bum Tso . . . . .	140	30	15,000
Mokien Tso . . . . .	140	27	..
Addan Tso . . . . .	140	24	..
Manasarowar . . . . .	133	16	14,900
Shemen Tso . . . . .	120	22	15,500
Rakhas Tal . . . . .	100	19	14,850



## CHAPTER II.

### ETHNOGRAPHY.

The Tibetan of the present day is the latest survival of the ancient Turko-Mongol stock which once prevailed through all high Asia. He came from the north-

#### Ethnology.

east in a purely Mongol form, and later from the south-east,—from Burma and Assam,—in the form of the Tibeto-Burman of modern ethnology. The aboriginal Tibetan tribes were, about the third and fourth centuries A.D., collectively designated under the general term *Chiang*, which in Chinese is written with the character composed of "man" and "sheep," indicative of their occupation as shepherds. About the year 414 A.D. Farni, the chief representative of the *Chiang* tribes, founded a state in their midst, with territory extending over a thousand *li*, and, being celebrated for his power and wisdom, was readily acknowledged as sovereign. He adopted "Tufa" as the name of his kingdom, which is the same as "To-bo", from which the names "Tubot" in Mongolian, and "Tibet" in English have been derived.

A full account of the early history of Tibet will be found in a later chapter, but a brief reference to the origin and rise of Lamaism is necessary here for the proper understanding of the ethnography of the country.

In the early part of the 7th century A.D., the Tibetans overran Upper Burma and Western China, and forced an humiliating peace upon the Chinese Emperor. As part of the terms of this peace,

#### Introduction of Buddhism.

King Srongtsan of Tibet received in marriage a princess of the Chinese royal family. This Buddhist princess, in harmony with King Srongtsan's Nepalese wife,—also an ardent Buddhist,—not only converted her husband to their faith, but also prevailed upon him to use all his influence to introduce the religion of Buddhism among the people of his kingdom. Srongtsan proved to be a ready pupil, and soon developed into a vigorous patron of the new faith. Buddhist priests were sent for from India, who reduced the Tibetan language to writing, and translated some of the more important books of China and India. In order to please his two favourite wives the king, in fact, forced the new religion upon his people, and, as might be expected in these circumstances, instead of proving the anticipated blessing to the country, it ultimately became as a disastrous parasitic disease. The form of Buddhism introduced, already impure, became in time a cloak to the worst forms of devil-worship, by which the Tibetan was placed in constant terror of his life from the attacks of thousands of malignant demons both in this life and in the world to come, and had to make never-ending payments to the priests to avert these calamities. The priests, or "lamas" multiplied rapidly. They soon usurped the substance

#### Combination of spiritual and temporal rule.

of authority in all matters of state; and, later, having gained the ascendancy in a struggle with the old nobility, they openly assumed the kingship. The result was disastrous to the community, for the lamas ruled entirely in their own interests. Instead of preaching or educating the laity, they designedly kept the latter in a state of ignorance and servitude, with the result that the Tibetans of the present day, sapped of their vigour and spirit, have become the most priest-ridden people in the world.



The first priest-king of Tibet was the high-priest of the Sakya lamasery, who in the year 1252 A.D. was raised to the kingship by the Mongol Emperor of China, the latter himself embracing Lamaism as the religion for himself and his people.

In the year 1358 was born the great reformer Tsong-kapa, who founded a new, or reformed, school of Tibetan lamaism, known as the *Ge-luk-pa*, or "yellow-cap" sect, in contradistinction to the *Nying-ma-pa*, or "red-cap" sect, the two names referring to the colour of the caps worn by their respective adherents. Tsong-kapa died in 1419, and was succeeded by a nephew, who was installed as the first Grand Lama of the *Ge-luk-pa* church, and who built the great monastery of Tashi-lhunpo at Shigatse. With him began the principle of perpetual reincarnation, which is now the established system of inheritance in the case of the Dalai Lama, the Tashi Lama, and the numerous other semi-divine personages throughout Tibet. Meanwhile, the "red-cap" school found considerable difficulty in maintaining its supremacy, and when, in 1641, some marauding Tartar tribes from the north sought to overthrow the old fashioned lama rule, an ambitious high-priest of the vigorous young rival sect of "yellow-caps" seized the opportunity afforded by this invasion to crush the waning influence of the Sakya pope and to snatch the temporal rule out of the hands of the "redcaps." The surname of this adventurer was "Vast as

the Ocean" (Tibetan *Gyatsho*), which in the Mongol language of his Tartar patron is *Dalai*, and hence came the title of Dalai Lama by which the priest-kings of Lhasa are best known. On gaining the throne, Gyatsho paid a visit to the Manchu Emperor of China, and, offering his fealty, was confirmed in the sovereignty of Tibet. On his return to Tibet, he set about establishing for himself and his successors a divine origin, based on a book of "revelations" which he discovered, proving that all Grand Lamas were incarnations of the great King Srongtsan; and he enforced his claims and his creed with such strong measures that the Jesuit missionary Grueber calls him "devilish God the Father who puts to death such as refuse to adore him." The majority of Tibetans, priests and laity, immediately accepted the supernatural origin which he craftily ascribed to himself; while those incredulous lamas of the rival sect who refused to accept his story were cruelly put to death, and their monasteries converted into "yellow-cap" convents. The only other person whom he allowed to share to some extent in these divine honours was the abbot of Tashi-lhunpo. This divine had, among

others, been granted the privilege of examining and approving the newly born candidate for the Lhasa Grand Lamaship, and of ordaining the one selected for the new reincarnation. He was now raised to the dignity of a Grand Lamaship, recognised as an incarnation of Buddha Amitabha, and second only in spiritual significance to the Grand Lama of Lhasa himself. Thus was established the existing system of a dual spiritual rule in Tibet.

Such in general outline was the origin and growth of modern lamaism. It would be impossible here to enter into a detailed account of the tenets of the faith. The reader is referred to Colonel Waddell's "The Buddhism of Tibet, or Lamaism." But some mention is necessary here, in dealing with the ethnography of the country, of certain features of the lamaic doctrine,



which have left their mark on the national character. Chief among these is the apparatus of religious communities; for in all other countries in which Buddhism prevails, establishments of this peculiar character are not to be found.

Chinese writers of authority have stated that for every family in Tibet there are three lamas, and, applied to certain districts, probably this is not an exaggerated estimate.

**Lamaist population.** In travelling from Jyekundo to Ta-tsien-lu, a distance of 600 miles, Rockhill records that he passed forty lamaseries, in the smallest of which were 100 monks, and in five of them from 2,000 to 5,000. In Rudok and Nari Khorsum, desolate regions though they be, and occupied almost entirely by a semi-nomadic laity, there are said to be 140 of these establishments, great and small. In Lhasa, out of a total population of 30,000, some 20,000 are lamas. If we take the total population of Tibet to be 3,000,000 souls (a probably over-estimated figure), we may reckon the number of lamas to be about 1,000,000.

The general appellation applied to all inmates of monasteries in Tibet is *trapa*. The proportion of *trapa* to the remainder of the population varies considerably in different districts.

**Trapa.** In villages and towns most families may be said to contribute at least one member to the lamaic fraternity, and this is often exceeded by two or three, though large families are exceptional in Tibet. Most children left orphans, and nearly all illegitimate offspring, are sent into the lamasery, while superfluous girls (*i.e.*, those girls who are condemned to spinsterhood owing to the practice of polyandry as the national matrimonial custom) often find a home in one of the numerous nunneries. In Kham and Amdo, the predilection for the religious life is often a passion, and here the proportion is large compared with the rest of Tibet. The monasteries of these provinces are large and influential, and every town is crowded with monks, who wander about in idle, vagabond groups.

It is the eldest husband of the mother, not the co-husband younger brothers, who makes the decision in these matters. The selected lad is usually entered in some monastery at the age of nine to twelve, and placed in charge of some relation of the father who happens to be a member there. Should there be no relative in any community of the neighbourhood (an unlikely contingency), the boy is attached to some old monk who, as well as teaching him, probably employs him in a hundred different ways in the domestic economy of his abode. No community of the *Ge-luk-pa* order will receive a boy or adult novice whose native home is within forty miles. On being formally entered, the youth undergoes a certain initiation; he is taken before the head lama, who receives him with a scarf presented by his parents, and cuts off a small tuft of his hair, which in Central Tibet is styled *trapu*, and in Kham *shtra-put* or "first hair-fruits." He is now a *trapa*, but for the present his duties are confined to the school, and he is not allowed to sit with the other inmates of the monastery at services in the worship-hall. The next stage is the attainment of the rank of *Genyen*. To this end the student is required to recite a few pages of the sacred text; and great accuracy is not demanded provided that fluency and the orthodox cadency characterise the recitation. The novice is then shaved completely, save for one tuft in the centre of his crown, and he receives the doctrinal name which he generally assumes as his personal appellation. To proceed as far as this grade is considered a considerable advance, for many remain *trapa* all their lives; some

#### **Genyen.**



attain the rank of *Gengen* when 25 or 30 years old, and a few before they are 20. At Tashi-lhunpo, the recitation is fixed at 125 pages, and in the event of failure a lad may be turned out of the monastery. The tutor is, however, well paid by the parents for his services.

The next step is the rank of *Getsul*, but this requires no examination.

#### *Getsul.*

The admission must be performed by an incarnate lama, for at this stage the candidate takes upon himself the vows of a religious life and of celibacy, and is thereafter allowed to read the sacred writings in chorus with the other monks. At prescribed periods an incarnate lama makes a tour of neighbouring monasteries, and the opportunity is seized to turn the occasion into a feast or fair. The candidates appear in a large waist-coat without sleeves, a many-pleated petticoat, and a cloak so folded over the body as to leave the right arm and shoulder bare. The ceremony consists in the incarnate lama snipping off the tuft of hair and sprinkling the candidate's head with water from a silver vessel.

The individual is not yet, however, a full-fledged lama. If he looks for

#### *Gelong.*

promotion, or to be sent for by the laity in the affairs of life, he must yet be ordained a *Gelong*,—the equivalent of the *Bhikshu* of Indian Buddhism. The candidate first presents to the lama a small collection of herbs of medicinal virtue, and then squats before the reverend personage in a suppliant attitude. He protests thrice the Buddhist creed, whereupon certain formal questions are put to him regarding his previous life and that of his parents. After taking the vows of celibacy and of the disciplinary rules of the faith, a silk scarf is tied round his neck, his offering of ten silver *tang-ka* is accepted, and the rite is complete.

The primary rules binding on every *Gelong* are against marriage, immorality, destruction of animal life, stealing, and murder. These rules are, however, honoured rather in the breach than the observance, and even public concubinage is openly indulged in without rebuke. A special officer known as the *Gekoi* is supposed to be vested with disciplinary powers; it is his duty to watch offenders, suppress turbulence, keep order at public ceremonials, and administer castigations.

The monastic life is open to all men and women who are pure Tibetans

#### Classes ineligible as lamas.

or Mongols, except the butcher and blacksmith outcasts. The butcher, whose calling in life it is to take animal life, is regarded with abhorrence, but "it was rather incongruous," says Colonel Waddell, "to find just outside the gates of a Buddhist convent a large butcher's bazar, with the monks buying and carrying off pieces of meat. Animal flesh is the staple diet of the monks of Tibet (with the exception of the few who have taken the higher vows). The lamas evade the Buddhist prohibition to take life by employing the butchers to do it for them, whilst they assign to the butchers for doing this the position of outcasts, and do not permit any of them to enter the order. When no butchers are available, it is usual for the lamaist to drive the cattle over a precipice, or to make the beast strangle itself." This little side-light on the manners and customs of the lamaist fraternity admirably illustrates the fraudulent sham of the faith.

The wealth of the greater number of monastic establishments is derived

#### Wealth of Monasteries, and occupations of inmates.

mainly from landed property, and on these estates are numerous small farmers and land-owners (*mi-ser*) who cultivate the land as hereditary tenants. As a general rule the inmates of the lamaseries are



not provided with food and clothing from monastic funds : they have to support themselves by their own earnings or from other sources. An ordinary member of the fraternity is supported largely by his family, but a *Gelong* can earn large sums by his ministrations to the laity. There are, besides, certain sources of the monastic income from which each inmate claims a share, such, for example, as harvest alms and funeral fees. Individual *Gelongs* are frequently money-lenders to both house-holders and their brother monks, charging heavy rates of interest. Some of the more accomplished lamas are trained as painters, and others in calligraphy, embroidery, carving, etc., while the more stupid ones are made to do the out-of-doors drudgery, such as hewing wood, drawing water, ploughing, and harvesting. But the great majority of lamas are an idle, good-for-nothing lot, of a remarkably low intellectual and physical type.

There is little in the existing Buddhism of Tibet which maintains the sobriety or the purity of the original creed. **Relation of lamaism to the original Buddhism.** Except in so far that the image of Buddha looks down from wall and altar upon the rites of lamaism, there is little connection between the present day Buddhism of Tibet and the Buddhism of Gautama. The doctrine of reincarnation remains as almost the sole link which connects the Buddhism of Tibet with the early standards of the faith, and this only because the rulers of Tibet have found a system of reincarnation to be politically useful.

To the Tibetans, Tibet is peopled by a host of super-natural demons. **The animistic character of lamaism.** Every habitation of man, every natural feature of the countryside, teems with these unseen terrors. A prayer alone will not exorcise these malicious spirits : the consultation of a lama (paid for his services) is a necessary preliminary to the erection of a *chorten* or cairn, to the setting in motion of a water-wheel, or wind-wheel, or even to the muttered utterance of an ejaculatory prayer. The priestly tax is demanded with exacting mercilessness, and where money is not forthcoming, the fee is paid in kind. The lamas, in fact, prey upon the ignorant terror of their flock with a regular system of brigandage. To educate the flock would be to strike at the very root of lamaic supremacy, and therefore the whole country is sunk in an ignorance to which it would be hard to find a parallel. The innumerable symbols and ceremonies which in Tibet have degraded the simple faith of Buddha have been designedly introduced to separate more effectually the priestly caste from its lay serfs. The latter have been brought up from childhood to live in a literal terror of their lives ; they blindly credit all they are told, and believe implicitly in the truth of the Tibetan saying, "without the Lamas, God is unapproachable." They mechanically perform certain actions, through the medium of which they hope to "acquire merit" ; they rigidly refrain from others for fear of a terrible reincarnation in the world to come. There is little in lamaism but sheer animistic devil-worship.

In these circumstances, it is not surprising that the Tibetan possesses little individuality. As a race, the Tibetans are an unintelligent and uncultured people. **The ignorance which it has produced.** Colonel Younghusband speaks of the leading mer of Lhasa as "appallingly ignorant," and again he says, "I formed a very low estimate of their mental calibre. It is impossible to regard them as much else than children." The few learned men among the Lamas keep their learning, as a matter of policy, to themselves.



The lay portion of the population of Tibet can be roughly divided into two distinct classes of inhabitants, with instincts, habits, and mode of livelihood as much apart as though they were of different nationalities. The denizens of towns and villages, including the settled agricultural population, form apparently one race: the nomad and semi-nomad tribes known as Drok-pa, who pursue a pastoral existence, form the other.

The former will be found to inhabit that part of the country which, in the previous chapter, has been called "the second physical division of Tibet", *i.e.*, the southern zone of the country. They are a quiet, orderly people of domestic habits and warmly religious feelings. With the exception of the larger towns such as Lhasa, Shigatse, Chetang, etc., the towns are mostly communities gathered round some monastery, but the majority of smaller villages and hamlets are occupied exclusively by agriculturists. In most of the large towns over a half of the inhabitants are ecclesiastics, and the number of lay males is small in comparison with the number of women. The female preponderance is due to the enormous number of men who join the

monasteries as celibates, as well as to the prevalence of polyandry, which tends to drive the surplus women from their homes into the towns.

Of the lay townspeople of Southern Tibet the majority are traders and mechanics. Most of the smaller tradesmen are Tibetans, but their transactions are paltry compared with the enterprise of dealers and merchants, who, belonging to other races, have entered the country to trade, and now monopolise all the more important commercial departments. The Tibetan himself is not naturally an adept at commerce. Large communities of Nepalese carry on the occupations of goldsmiths and jewellers; Kashmiri merchants are cloth-dyers and money-lenders; the Chinese devote themselves to multifarious pursuits, among which that of restaurant-proprietor is largely patronised. The Tibetan townsfolk, however, show considerable skill in mechanical arts and metal work, and a good many obtain a living in this way. Most of the better class people belong to religious orders, but a certain number of laymen have private estates, while others are employed in government service as Jongpens, etc.

In stature, the Tibetan of the towns is small,—smaller than the Chinese—

but of sturdy physique. Owing to the severity of the climate he ages rapidly, and is generally wrinkled at thirty. Colonel Waddell notes two distinct and almost equally prevalent types in Lhasa. The one is round-headed, flat-nosed, and oblique-eyed, approximating to the pure Mongol: the other is longer-headed, with nearly regular features, a fairly shapely long nose, and little of the Kalmuk eye, a type approximating to the Tartars of Turkistan. In complexion, they are of a light chocolate colour, and many are quite fair; among the children, (who are few), rosy cheeks are quite common. On the whole, in spite of the filth and unsanitary conditions amid which they live, the townspeople are rather more cleanly in their personal habits than the denizens of the agricultural villages, or the Drok-pa (or nomads) of the uplands.

The dress of the townspeople consists generally of a fur-lined winter hat, with up-turned ear-lappets, or ordinary soft Chinese felt hat with turned-up brim; a garnet-coloured coat, girdled at the waist like a dressing-gown, and hitched



up to form a capacious breast-pocket; and bright cloth-boots. All the women wear an apron of striped home-spun, and most of the married women a massive bracelet of white conch-shell on the right wrist. The townspeople

**Jewellery.** exhibit a great love of jewellery : either a long ear-ring with a pearl or turquoise pendant, or massive silver bangles, or a huge bone thumb-ring and amulet box, is almost always worn, together with an inlaid prayer-wheel. It is chiefly the women who lavishly indulge this taste. The turquoise is the stone in chief demand.

In speaking of the inhabitants of the towns, mention must be made of the **Ra-gya-pas**, or tribe of beggar-scavengers. These men are the "breakers-up" of the dead. It is difficult to imagine a more repulsive occupation, a more brutalised type of humanity, and, above all, a more abominable and foul sort of hovel than those which are characteristics of these men. Chandra Das reports that these Ra-gya-pas are recognised by the authorities as a tribe of refuge for all the rascals of the country, whose place of origin cannot be ascertained. This tribe is peculiar to Lhasa.

The houses of the townsfolk are substantially built of stone of sun-baked brick, the walls neatly whitewashed, and the wood-work picked out in colours; but the interiors are as squalid and dirty as the country hovels. Some of the more well-to-do have sufficient taste to ornament their interiors with paintings, frescoes, and furniture, and a few may have one or two glazed windows. The houses of the poorer class have generally two rooms, one to eat in and the other to sleep in, each of which has a hearth in the centre without a chimney. The Tibetan does not undress when he turns in to bed, but covers himself up with some extra rugs of skins and spends the night on the floor. The dwelling places of the Ra-gya-pas are huts about four feet in height, compounded of filth and the horns of cattle. This horn

**Horn Masonry.** masonry is characteristic of Lhasa, and is found nowhere else in the world. It is of two kinds; in one method the horns are inserted with exquisite regularity and care into the surface of the wall, which internally is strengthened by a rubble also composed of the same material; in other cases, no outside covering is attempted, and the horns are simply thrust into a mass of mud wall which probably does not survive a year. Of this latter class are the Ra-gya-pas huts.

The food of the towns folk consists of numerous cups of "battered" tea,—(imbibed all day long),—unleavened scones of wheat or barley meal, *tsam-pa*, a stew of meat and vegetables, some dried cheese as a relish, and occasionally some brown sugar. *Tsam-pa*, or *suttu*, is made from barley, which is first put into

**Tsam-pa.** boiling water, then parched over a fire, and afterwards ground. Being already partially cooked, it has the great advantage over flour of being ready to be eaten, without additional cooking, by adding a little water,—a great consideration where fuel is scarce. "Buttered"

**"Buttered" tea.** tea consists of a soup or broth, made by churning tea-leaves with rancid butter and balls of dough, adding a little salt, and straining; though nasty to our taste, it is not merely a stimulating hot drink in the cold, but overcomes the danger of drinking un-boiled water in a country where the water-supply is dangerously polluted.



The strong drink of the Tibetan is the beer of the country, made from fermented barley, of a vinegary taste and smell, but not strong in alcohol. A

**Liquor.** coarse, fiery brandy is distilled from it, but is not extensively drunk. Imported English beer is occasionally drunk as a liqueur. Although a good deal of beer is consumed, drunkenness is not a common vice among the people of the towns and villages.

Turning now to the agricultural inhabitants of the villages and hamlets,

**The villagers.** we find a very ignorant and a very poor community. Their abodes are to be found along the banks of rivers and streams, or on the shores of the big lakes, and each house is surrounded with its patch of cultivation. They dwell in quaint stone huts with walls of great thickness, as a means of defence against human enemies as well as against the cold. The villagers are all tillers of the soil; they are called *mi-ser*, and are supposed to work on lands descending by inheritance to them, though in reality they own to a very limited extent. The landlord may be the Tibetan government, or some large monastery, or else a private hereditary nobleman; and the dues claimed are made proportionate to the produce of the land. The payments are made to a very small extent in cash, to a large extent in crop-produce, and most of all in the supply of transport, for which the *mi-ser* is liable, whenever government officials pass through his land. The villager lives a life of unremitting toil, and his whole interests are centred in his fields and cattle. He looks on all the authorities as so many oppressors, and has little patriotism or veneration for the rulers of the land. The ready submission of the village community to our advance in 1904 shows how eagerly they would accept any régime which promised a yoke a little lighter than that which now prevails.

The Drok-pa, or nomads, are the herdsmen of Tibet. They are divided

**The Drok-pa.** into numerous tribes, who rarely intrude onto the ground of their neighbours. Every tribe is made up of so many "tents", one "tent" to every family; and the members of a tribe do not travel about in one body, but divide themselves up into so many "camps". The camps separate for the summer, re-uniting for the winter, generally in some natural strong-hold. Others again have a regular system of subterranean dwellings, galleries and compartments cut in the side of the cliff or below a plateau. But

**Their tents.** throughout the length and breadth of Tibet the black tent of coarse canvas spun from yak's hair is the typical residence of the nomad. These tents are constructed of two pieces, which, when pitched, are put up together with an opening all along the top to act as a smoke-vent. Outside, little flags flutter from the six corners, and the poles are decorated with yaks' tails. Inside, there is generally room for from five to ten people to sleep. In the centre a large oven of stone or clay is erected, and near the entrance stands the shrine with its rude image. The tent of a Drok-pa chief is often much more luxurious.

The Drok-pa women do not work so much out of doors as the village women, and therefore their faces are generally much fairer, though often with the ruddiest colour as well. The men are of a dusky brown colour, and

**Their dress.** take a fuller share of daily labour than do the husbandmen of the villages, relieving the women in many ways. The dress of both sexes consists of a long robe of sheep-skin with the wool worn inside, the skins not being tanned but rendered pliable by continued rubbing between the hands. This robe is bound at the



waist by a girdle of yak-hair rope ; and the outside is often covered with stout cotton cloth to cover the inside of the raw skin which lies on the outer side. Women sometimes wear woollen petticoats in addition to the tunic.

For food, the Drok-pa eat largely of beef and mutton. *Tsam-pa*, as everywhere in Tibet, is the staple food. As meat in winter can be kept frozen for months, yak and sheep are killed in November and preserved whole for winter consumption, in order to meet the inconveniences of scarcity of fodder.

Their flocks and herds entitle the Drok-pa to a higher position in the social scale than the poorer inhabitants of the villages. The number of head belonging to a single "tent" is sometimes as much as 1,500 ; while the poorest generally own some 25 sheep, with a few yak cows and a couple of bulls. A few Drok-pa inhabit the region of the Yamdrok Tso, and here horses are bred which are sold over the border at a high figure. Asses also find a ready sale as beasts of burden.

Such are the general characteristics of the Drok-pa tribes of Tibet, but there is another characteristic which, though fortunately confined to the minority, is nevertheless very prevalent among them. To the north and north-east of Lhasa are found a number of tribes whose occupation is predatory rather than pastoral. Except in the cattle-breeding or trading season they roam about in parties of from 20 to 200, bent on high-way robbery. These tribes

**The Hor-pa and Chak-pa.** are known collectively as Horpa, or, in their capacity of marauders, as *chak-pa*, and are said to comprise about 3,500 "tents", a total of perhaps 10,500 souls. The people of Nagehukha, a district of this region, are of a more industrious and pacific nature, but if they be included among the Hor-pa, the total would reach 20,000. The Hor-pa differ in some respects from the Drok-pa of Western Tibet and the Central Provinces. Their dress is usually

**Their dress.** a robe, purple or violet in colour ; and they sometimes wear petticoats or skirts which on horse-back are pulled up through the girdle to give freedom to the legs. Their weapons consist of a long matchlock slung over the back, a sword in

**Their weapons.** a wooden or leathern scabbard at the side, with generally a spear also, and sometimes even bows and arrows. Polyandry does not prevail among the Hor-pa, though the women seem as influential and respected as in the village districts, where the practice is so prevalent. The Hor-pa districts are Namru, Jama, Ata, Yangsa, Amdo, and Sangi.

Drok-pa extend right up into the north-east corner of Tibet, into the districts surrounding the Koko Nor, and even over the border of the Kan-su province of China. The Drok-pa of the Koko Nor are known to the Mongols of that region as Tangutu, or Kara Tangutu ("black Tibetans"), an expression which may have reference to their savagery or to the black tents in which they live.

The section of the Kan-su border inhabited by these Tanguts is known as Am-do (not to be confused with the Hor-pa Amdo north of Lhasa), and hence the name Am-dowa, by which this section of the Drok-pa are known.

**The Pa-na-ka-sum.** To the west of the Am-dowa, living in the steppe or the mountains around the Koko Nor, are the Pa-na-ka or Pa-na-ka-sum ("the three tribes of Pa-na"), who,



save in their complete independence, differ in no from their neighbours. The Am-dowa are organised into large bands, under hereditary chiefs, responsible to the Amban at Si-ning for the good behaviour of their people and for the regular payment of tribute. They have no supreme chief. The Pa-na-ka have two chiefs, one north of the Koko Nor, and the other south. The former is nominally under the orders of the Amban at Si-ning, the other is practically independent.

Physically, these Drok-pa of the Koko-Nor are of slight build, averaging about 5 feet 4 inches in height. Rock-hill describes them as being of round-

**Physical type.** headed type, with high and narrow forehead, a nose more prominent than the Chinese, large and nearly horizontal eyes, ears closer to the head than the Mongols but still large, cheek-bones prominent, teeth regular and strong, muscles not well developed, feet and hands large. They are gay, loving, trustworthy, and intelligent, when once their word is engaged; but quick-tempered, domineering, and greedy. Both men and women drink to excess whenever they get the chance. Their tents are similar to those of the Drok-pa of Tibet proper. Hanging from one tent to another are generally to be seen festoons of little bits of cotton called *lung-ta*, on which are stamped the images of gods, or some prayers and incantations, designed to keep away the demons of disease and all impending evils.

**Their food.** The food of the Koko Nor Tibetans is the ordinary Drok-pa diet,—tea, *tsam-pa*, sour milk, granulated cheese (*chura*), and boiled mutton; to this is sometimes added a dish of vermicelli. The women eat at the same time as the men but not seated with them. Monogamy is the rule, and polygamy the exception. A man may have to give as much as 300 sheep, 10 horses, and 10 yaks for a good-looking girl. Only on marrying does a man leave his parents' tent and start one of his own. Families are small, and little store is set on the chastity of women. The old are little respected, and it frequently happens that the son kills his father when the latter has become a burden to him. The most influential and wealthy section

**Their lamas.** of the Koko Nor Drok-pa is the lama class, which is rapidly increasing in Am-do on account of the reputed holiness of the district. Unlike the Hor-pa, who only furnish a very small contribution to the monastic establishments, one male in every three among the Am-dowa and Pa-na-ka-sum is received into the church, almost all entering the *Ge-luk-pa*, or "yellow-cap" sect.

South of the Pa-na-ka-sum are the Golok, the northernmost of the Kham-pa tribes, who inhabit a large district extending from near the border of north-west

**The Golok.** Ssu-chuan to the sources of the Hoang Ho, and may be included under the general designation of Drok-pa. They seem to differ from the rest of Tibet in language only, which, though undoubtedly Tibetan, is said to be scarcely comprehensible by any one who has not made a special study of it. The Golok are said to number about 1,000 tents, or perhaps 5,000 souls, and are divided into a number of tribes of which the chief is the A-Chu Golok. Many

**Their marauding propensities.** of them inhabit caves in the hills, and all of them are dependent, as far as supplies are concerned, on Sung-pan traders and neighbouring Tibetans. They do little trading, however, and their most important vocation is the pillaging of caravans and the marauding of the peaceful agriculturalists around them. They are the terror of the pilgrim companies proceeding to, and returning from, Lhasa by the Koko Nor route. Some lamas live among them, but



most of their own ecclesiastics reside at the monastery of Lhabrang in the Hor-pa country.

On the upper waters of the Yangtse Kiang, from its source to Jyekundo,

#### The Kham-pa.

(where the Drok-pa districts of Kham come to an end), are found numerous pastoral tribes of Tibetans, which, in 1732, were organised by the Chinese government into thirty-nine hundreds, each under a *Deba* or chieftain. These tribes comprise the Kham-pa proper, though the name is generally applied by the Tibetans of the Western and Central Provinces to all the people of Kham from the Golok in the north even as far as the Kham-pa Rong of the Lepcha country in the south. The Kham-pa are the most dreaded warriors of the Tibetan army; they are exceptionally fine horsemen, and, unlike

#### As soldiers.

the townspeople of the Tsang-po basin, are tall and athletic, with the free carriage and fine physique of the mountaineer. They are, however, quarrelsome and untrustworthy; some of the Kham levies who escaped from the Karo pass in 1904 mutinied subsequently in Lhasa, and pillaged the Chinese quarter of the town. Though naturally fond of fighting, they seem to be lacking in moral, especially in the hour of defeat, and do not possess the fanatical ardour which produces the reckless bravery of the lama class. Bower had some talk, when travelling through Eastern Tibet, with a Kham-pa who had fought against us in Sikkim in 1888, and who unwittingly summed up the attitude of his people in relation to warfare generally in the remark, "I got hit in the face, went straight home, and have stayed there since."

The customs of the Kham-pa (and by Kham-pa is meant the Kham-pa proper, i.e., north of Jyekundo) are very similar to those of the Drok-pa of the Koko Nor. Monogamy is the rule. Tents form the chief habitations, but as the Drok districts merge into the *Gang* country, villages of two-storeyed houses make their appearance; and with the change in the aspect of the country, the manners, customs, and pursuits of the people change also.

This concludes the Drok-pa of Tibet, but before proceeding to deal with the general characteristics of the people as a whole, some reference is necessary to the inhabitants of certain districts which fall naturally under neither of

#### Gyade.

the two heads into which we divided the population of the country. The inhabitants of the district called Gyade are partially settled and partially nomadic. They number some 50,000 souls, and as a whole profess the Pön creed, a branch of Shamanism, said to be the primitive religion of Tibet. It is the

#### Ponism.

direct antithesis of Buddhism, and in this respect must, therefore, be post-Buddhist. The Pön turn their prayer-wheels and cylinders from left to right, instead of from right to left. They reject the formula "*Om! mani padme hum!*"; they eat fish and pork; they have female priests; they have books the express counterpart of the chief Buddhist ritual books with each direction reversed. The leading deity of the Pön faith is the mythical *Kyung* bird (a bird resembling a Chinese phoenix); and the mysterious Svasvistika sign is always on evidence in their temples. Polygamy prevails in Gyade, not polyandry. Little value is attached to a girl's continence either before or after marriage.

The settled population of Eastern Tibet, i.e., the agricultural Kham-pa

#### The southern Kham-pa.

inhabiting the valleys south of the 33rd parallel, are, generally speaking, akin to the settled population of Tibet proper, though there are certain points of



difference. In Derge the "red-cap" lamas are most numerous and influential; the "yellow-cap" sect preponderates through the rest of the province. The creed of Pön also exists, especially in the south-eastern districts: among the Mantzu (to whom further reference will be made later) it is largely patronised. One of the most remarkable features of southern Kham is the

**Matrimonial relations.** variety of matrimonial relations which exists. Polyandry appears to be the most striking antithesis between the pastoral and the agricultural Tibetans, and it is not easy to discover the reason. Among the pastoral nomads of the north monogamy is the rule, and polygamy is occasionally met with. In the agricultural districts south of Jyekundo, polyandry prevails. In Derge, the most thoroughly agricultural district of Eastern Tibet, polyandry is very prevalent, but here, as in other regions, polygamy is met with among the richer classes. Temporary marriages are also fully recognised, and in no way considered immoral; indeed, the matrimonial relations existing in Eastern Tibet are little removed from promiscuity. Family names are unknown: children are spoken of as "of such and such a woman", and hardly ever is the father's name mentioned.

Contiguous to the province of U, in which Lhasa is placed, there stretches to the east the extensive province of **Kong-po.** The men of this district are noted for their athletic build and gigantic size. They differ from the Kham-pa further east not only in height but in their ready faithfulness to the Lhasa government. The latter quality arises from the fact that for many generations the large proportion of the lands have been fiefdoms of the four Ling monasteries in Lhasa; and the residents have been used for centuries to acknowledge fealty to their monkish over-lords. Much of the land is fruitful, lying as it does on the numerous valleys of the Tsang-po basin, but the Kong-po people are not only agriculturalists. They are great hunters and horsebreeders, and engage in other branches of commerce.

East of Kong-po is the principality of Po-yul, which is divided up into a number of different districts, each under the rule of a separate chieftain, but all under the nominal government of a king called Ka-nam Gyal-po. The main sub-divisions of the country are Upper and Lower Po. The chiefs are always quarrelling among themselves, and the people seem to be lawless and savage.

Of the Tibetan tribes living beyond the frontier, the Mantzu, or Sifan, of the Ssu-chuan border deserve more than passing mention. Besides affording the subject of an interesting ethnological study, these tribes are important from a military point of view inasmuch as they inhabit a territory through which passes the main trade route between China and Tibet, and in any operations on the eastern frontier of Tibet, these Mantzu tribes will have to be reckoned with. They are, moreover, a warlike people, perpetually waging inter-tribal wars without permission from either Lhasa or Peking, and in the disturbances of 1905 they played an important part.

Of these tribes there are said to be eighteen, and they cover the country directly west of Kuan-Hsien and Sungpan,—an area of about 300 miles from west to east, and 400 miles from north to south. It is known as the Kya Rung, or Kin Chuan, and comprises the upper basin of the Tung Ho and its affluents. The lists of these eighteen tribes which travellers have furnished vary so



much that it is difficult to give a list which may definitely be said to be accurate. Appended will be found lists furnished (i) and (ii) by Rockhill from native sources. (iii) by Baber, and (iv) by Rockhill's, Baber's, and O'Connor's lists. O'Connor in his 1903 Report. Corresponding names in the four columns are aligned, and the variety of spelling will be noticed :—

(I)	(II)	(III)	(IV)
Muping.	Muping.	Muping.	..
Chagla.	Jala.	..	Chala.
Tro-jyab.	Tru-jyab.	Tehro-shiop.	Tros-gyap.
Ba (Batang).	..	..	..
Litang.	..	..	..
Derge.	..	..	..
Kangsar.	Konsar.	..	..
Mazur.	Mazer.	..	Mazer-Kungsar.
Dramon.	..	..	..
Berim.	..	..	..
Dritu.	..	..	..
Gozi.	Wojl.	Woje.	Wogzhi.
Pomo.	Sama.	Somung.	Somo.
Chog-tsi.	Cho-tse.	Djiu-tse.	Choktsi.
Nying-ga.	Zinga.	Zurga.	Zinga.
Mill.	Mili.	..	..
Dra-ting.	Trati.	Tehra-tin.	..
Logu and Ba-bam.	Luergo.	..	..
..	Jyaka.	Djia-ka.	..
..	Tsenla.	Tsanla.	Tsanla.
..	Tamba.	Tamba.	Tamba.
..	Pati Pawang	Pawang.	Pamug.
..	Gi-she-tsa.	Ge-shie.	Go-shi-tsa-pa.
..	Jye-dam.	..	..
..	..	..	Kata.
..	..	..	Monya.
..	..	..	Rabden.
..	..	..	Dasti.
..	..	..	Mopshi.
..	..	..	Gyaka.
..	..	..	Hanyung.

Investigations of late years by missionaries and others have produced the following names :—Chala (or Chagla), Kata (or Kestha and Kas Tag),



Badi, Bawang, Chos-kia, (or Kros-jia), Langs Kar, Tsung-kang, Chogs-chi (or Chok-chieh), Somo, Wok-je, Wassu, Damba, Han-niu, and Muping. Four other names are required to complete the list of eighteen tribes, and these would appear to be Tsanla, Rabden, Zinga, and Go-shi tsa-pa. This list should be found to be approximately correct, but it must not be accepted as authoritative, as the upper reaches of the Tung Ho north of Chos-kia and Somo have as yet been very scantily explored, and further investigation may bring to light some hitherto undiscovered tribes.

The Mantzu live in settlements of from 50 to 500 families. These settle-

**Mantzu dwellings.**

ments are located high up on the sides of mountains and are admirably suited for defence, being practically inaccessible from above, while they command all approaches from below. The houses are evidently constructed for defensive purposes. Built of solid blocks of stone, they are usually three, sometimes four, storeys high, surmounted by a flat roof with battlements, the walls pierced with loop-holes and narrow windows. In the lower courtyard are the sheep-pens and cow-houses, kitchen and guest-room. The flat roof is used for religious exercises, eating, sleeping, and recreation; in harvest time it acts as a threshing floor.

The lives of these Kya Rung tribes, when they are not engaged in

**Their occupations.**

intertribal warfare, are taken up largely with agricultural and pastoral pursuits. They are also the gunmakers of the border and Eastern Tibet, thousands of strong serviceable gun-barrels being made in Somo, and sold to Chinese, nomads, and robbers. They carry their guns for sale all over Tibet. They are also famous builders; their own houses, forts, and towers bear ample testimony to their architectural skill, and much of the heavy masonry in the Chengtu plain, such as dams, walls, reservoirs, and wells, is the work of their hands.

By the Chinese the Kya Rung tribes are known as the *Keo-Si-fan*, or

**Their morals.**

"Adulterous Sifan," but this term is probably directed at their lax matrimonial relations, rather than at their morality *per se*. Morality, however, (as everywhere in Tibet), is of a low standard, and in Kin Chuan venereal diseases are said to be very prevalent.

The dress of the men of the Kya Rung is much the same as that of Eastern

**Their manners and customs.**

Tibet generally, but the utter filthiness of the Drok-pa nomads is absent. Opium does not seem to have made any serious inroad, in spite of the number of Chinese living around them, but wine is freely drunk. The dead are as a rule cremated. The women do all the outside work, and the men keep house and attend to the domestic arrangements. The result is that the former are extremely coarse and un-womanly in appearance and manner, while the latter exhibit qualities more in harmony with western ideas of refinement.

The Pön creed is much patronised by the Kin Chuan tribesmen, but no enmity appears to exist between its followers and the adherents of the "red" and "yellow-cap" sects. The people are bound by the strongest of ties to Lhasa, which is their holy city and the abode of their gods. Peking exercises little influence, and a Chinese passport is not only useless, but often a cause of suspicion and obstruction.



No definite information is available regarding the population of this region. A missionary estimates the population of Badi and Bawang to be 20,000, of Chos-kia to be 150,000, of Somo, Langskar, Tsung-Kang, and Damba to be 310,000, of Kas Tag to be 12,000, and of Wassu and Muping to be 30,000. He also considered the states embracing the head-waters of the Tung Ho to be very thickly populated. This estimate would appear to be considerably exaggerated, but nevertheless the region is undoubtedly very well populated, and in striking contrast to Tibet proper. The absence of polyandric marriages is probably largely responsible, but the death rate is said to be small, and mortality among infants very slight.

The languages spoken by the Mantzu present some peculiar features. In Chagla, the dialect approximates the pure Lhasa tongue, but in Bawang the pronunciation is completely different. Possibly the Bawang dialect is the primitive form of Tibetan, for, not only are the Tibetan letters used and many words employed of undoubted Tibetan origin, but all the silent consonants are given full value. For instance, such hideous combinations as *bdyibs*, *dbus*, *bsdregs*, pronounced *yi*, *ü*, *dra*, are, in Bawang, given full value. While in Tibet these old peculiarities have died out, in Kin Chuan a form of orthography, similar to the Tibetan of King Srongtsan's time, is maintained. This dialect seems also to be associated with the Pön creed. In Badi, Wassu, Somo, Chos-kia, and possibly in other of the states, another language is spoken which possibly is not of Tibetan origin. Here again silent consonants are given full value, but, on the other hand, vowels are scarcely pronounced. The Wok-je have another language of their own, employing the Tibetan alphabet but nothing more.

To return to Tibet proper. The manner and customs peculiar to certain tribes and classes of the inhabitants have been discussed; it remains to deal with the general characteristics of the Tibetan as a whole. Inhospitable and forbidding as the Tibetan at first appears, and as he is popularly reputed to be, there is much in his character which is genial and inviting. Considering the great geographical exclusiveness of his country, it seems only in the natural course that he should have become an exclusive individual. But the chief cause of this policy of exclusion has been the political barrier raised by the lama class, who, prompted by their own commercial and clerical self-interest, and their dread of losing their advantageous monopoly by the introduction of Europeans and their methods, have striven by every means in their power to maintain their isolation. The Tibetans are also excessively suspicious, not only of strangers, but of themselves. Among the Drok-pa tribes, the appearance of a stranger on the horizon is the signal for a show of every precaution. These precautions are not relaxed until friendly relations have been established. The Tibetan also exhibits a remarkably low standard of moral rectitude. He is untruthful and faithless, deceitful and insincere. To Sarat Chandra Das the Minister of Shigatse spoke of the people of Lhasa as "suspicious and insincere," and to Turner, the father of the Tashi Lama spoke of them as "crafty, designing people, of fair exterior, but deep and black of heart." Though there is great jealousy between Lhasa and Shigatse, there is no doubt that the people of Tsang are "straighter" than the people of U; Tibetans themselves generally say so, and they are preferred as ordinary servants. The lamaistic religion is responsible for all the bad qualities of the Tibetan character. It sets up no



other standard of morality than the disciplinary rules of the faith, which, as has been remarked above, are paid little heed to, even by the lamas themselves.

The superstitious nature of the Tibetans has already been alluded to. The belief of the people in the magical power of the lamas is notorious, and was never better exemplified than when they charged up to the British rifles in Sikkim in the campaign of 1888 under the firm conviction that they had been rendered invulnerable by the magical power of the lamas. "They are governed in all concerns of life," writes Turner, "by an awful regard to the dictates of superstition."

On the other side of the Tibetan character, a marked geniality and politeness are noticeable. They are contented and good-natured. Among the gentry, rules of etiquette prevail in every branch of life, whether eating, drinking, speaking, writing, or in dress. It is probable that not even in China or Japan are rules of etiquette more numerous or more rigorously employed. They are, too, an eminently religious people, and this in spite of their childish ignorance, and the low standard of morality set up by their faith. "I was living among people," writes Turner, "who made religion the sole business of their life." Religiousness is, in fact, their governing characteristic, and this is the point, says Colonel Younghusband, "upon which our greatest attention must be fixed in our future relations with them."

There is also a semi-barbarous side to the Tibetan nature which requires to be noticed. Travellers in the country have remarked on the extraordinary combination of genial good-nature and savage brutality which the Tibetan character frequently presents. The Buddhism of the lamas does not stop short of the crime of murder. Punishment by mutilation is still in vogue in the country: the barbarous lopping off of a hand or a leg is administered for comparatively trivial offences. The men attached to the Mission, who were captured by the Tibetans in Gyantse on May 4th, 1904, were cut to pieces slowly, and during the stay of the Mission at Kamba Dzong, an unhappy woman, convicted or suspected of adultery, had her nose and lips split, and was afterwards flogged to death by the Chinese.

Polyandry is the prevailing marriage system of Tibet, though, as has been

**Marriage customs.** shown above, polygamy and monogamy are found in certain districts as well as practical promiscuity. Marriage ceremonies are simple, but, as is the case in most eastern countries, a price is paid for the girl. There is a slight religious service performed by a lama at the actual marriage, and the usual feast follows the ceremony. Divorce in Tibet is expensive, though the necessity for it is greatly reduced by the frequency of unions of a temporary nature.

The usual Tibetan method of disposing of the dead is by exposure. A man carries the dead body to the recognised place on a rock, and then he and the attendant lama proceed to cut off the flesh in pieces, so that the ravens and vultures can devour it. This method has probably arisen from the great difficulty which would attend a burial in a hard and rocky soil, and also from the scarcity of fuel for cremation. The bodies of the very poor are thrown into the streams immediately after death. Important personages are cremated.

**Disposal of the dead.** **Amusements.** Tibetans have few amusements, and there appears to be no national game. Horse-racing is popular, especially in Eastern Tibet, where chess and cards are played also, though only by those who have spent some time over the Chinese



border. Singing and dancing are favourite amusements. Theatrical performances are very popular; these are held in the open air, in a street, or in a court-yard. They are given on the occasion of a festival, the general public being admitted free at the expense of some well-to-do person. They are always enacted by lamas, and most of the pieces are mystery and sacred plays, usually former births of Buddha. Most monasteries have a sacred dance (*cham*) once a year, in which the monks perform. The people of Lhasa are much given to picnicing in the autumn, and nobles spend several weeks in tents in their summer gardens. Most families of good position keep a garden house whither they repair for part of the summer. It is surrounded by a small park in which they practise archery.

The population of Tibet has been briefly referred to in the previous chapter, where an estimate of 3,000,000 was given.

#### Population.

This estimate is intended to cover the whole of Tibet lying within the frontiers as therein defined, and including all non-Tibetan people living within that area, as well as tribes of undoubted Tibetan origin beyond, but close to, the border. In the absence of any definite figures, and of any authoritative census for nearly two hundred years, it is impossible to say whether the estimate given is even passably correct; possibly it may be very wide of the mark, though, if anything, it is probably exaggerated. There seems to be no doubt that the population of Tibet proper (*i.e.*, the Brahmaputra basin) is dwindling, though at what rate it is impossible to ascertain. Not one half of the arable land is under cultivation, and there is evidence of shrinkage everywhere in the abandoned tracts of former cultivation. In Eastern Tibet, however, the valleys of the great rivers are well populated. Here the population is undoubtedly increasing, and may be sufficient to counteract the steady decrease in the west. The climate of this region is less rigorous, and the general health and physique of the people is said to be much better.

The following may prove to be a fairly accurate estimate, in round figures, of the total population of each district, but

#### Rough estimate.

it must be remembered that the calculation has, of necessity, been arrived at largely by guess work:—

Province of U . . . . .	1,000,000
Province of Tsang . . . . .	50,000
Province of Lokha (South-eastern Tibet) . . . . .	200,000
Province of Kham (including Tibetan villages over the border but excluding Mantzu) . . . . .	800,000
Nari Khorsum . . . . .	12,000
Western Tibet and Western Chang Tang . . . . .	10,000
Drok-pa of Chang Tang . . . . .	50,000
Hor-pa (including Nagchhukha) . . . . .	20,000
Gyade . . . . .	50,000
Mantzu . . . . .	100,000
Am-dowa, Pa-na-ka-sum, and Golok . . . . .	(?) 30,000
Tsaidam . . . . .	20,000
Total . . . . .	2,642,000

The balance would be made up of the non-Tibetan tribes of the south-east, and of a floating population of foreign pilgrims.

Tibetan dialects, though all based on the old classical language (which was reduced to writing by King Srongtsan), vary considerably in different districts.

#### Languages.

That of Lhasa is recognised as the official speech of the country, and is probably understood all over the country, except among the non-Tibetan tribes. The peculiar dialect of the Golok has been mentioned. In North-eastern



Tibet, Mongolian dialects are largely spoken, while on the eastern border Chinese is generally understood. The dialects of the Mantzu tribes have been referred to at some length, and here a knowledge of the Tibetan language of Lhasa avails little, except in the southernmost state of Chala. In Western Tibet, although the written language by no means accurately represents the spoken sounds, it does so more nearly than in and around the capital; moreover, Ladakhi, a comparatively simple language, is generally understood further east, and the traders and officials in these parts are acquainted with an elementary Hindustani.

As appendices will be found a pamphlet by Major W. F. O'Connor on the phonetic transcription into English of Tibetan words, and a short glossary of words in common use, prepared by Mr. C. A. Bell.

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## CHAPTER III.

### CLIMATE AND HEALTH.

Climatic and meteorological conditions vary so remarkably in different parts of Tibet that no general description

**General.** of them could be given which would be applicable to the whole of the country. When it is remembered that Tibet lies at a general elevation of from 13,000 to 17,000 feet above the level of the sea, and is traversed by mountain ranges varying from 19,000 to 26,000 feet, and yet is situated only from  $5\frac{1}{4}$  to 14 degrees north of the Tropic of Cancer, it is not surprising that the meteorology of the country is unique. These peculiar climatic conditions are still further complicated by the mountain barriers by which Tibet is surrounded; those on the south cut it off almost completely from the moist currents of the Indian seas.

In dealing with the meteorology of Tibet, it will be found convenient to divide the country into its three natural physical divisions, as defined in Chapter I,—*i.e.*, the Chang Tang, the Brahmaputra Valley, and Eastern Tibet. Little need be said of the Chang Tang, for, as has already been explained, the sterility of this region alone renders it impracticable as a possible area for military operations even on the smallest scale. It will suffice to say that from the end of September to the middle of March, the climate is characterised by intense cold and a biting wind. Not till May does the Chang Tang become in any way habitable, except perhaps for small parties of travellers, and even in the summer, frosts are registered at night.

The meteorology of the second physical division of Tibet,—the valley of the Brahmaputra and its affluents,—presents a considerable variety of climatic conditions. Winter operations at elevations exceeding 14,000 feet may be considered out of the question, and this reduces the season for active operations to about seven months, *i.e.*, from the beginning of April to the end of October, or perhaps the middle of November. In the Gyantse-Shigatse valley, the Lhasa valley, and the Brahmaputra valley itself, active operations would be possible all the year round, but communication with India, by the roads at present in existence, would be uncertain and hazardous.

The chief features of the climate of this division are the summer and autumn rainfall, and the generally prevailing southerly wind. The southern

**The rain and snowfall.** zone of Tibet, more especially its south-east corner, comes under the partial influence of the Indian monsoon to an appreciable extent, and the rainfall is sufficient to support a goodly growth of hardy cereals, and a pasture which nourishes many hundreds of thousands of sheep and yaks. In the Chumbi valley it is exceptionally heavy. Here snow commences to fall about the middle of November and continues to the beginning of May. The average annual rainfall is about 45 inches, and about 10 inches at Gyantse. The snowfall at Gyantse is practically *nil*. Further north the rainfall is lighter, but Colonel Waddell estimates that at Lhasa about 30 inches must have fallen during the summer and early autumn of 1904. During the stay of the Mission at Lhasa, rain fell on 33 out of 51 days between August 3rd and September 22nd. The Gartok expedition reports rain to have fallen all day in the neighbourhood of Shigatse as late as October 18th. In 1906, no rain was recorded at Gyantse



after the week ending September 8th. During his residence in Lhasa from December 10th to April 21st, the native explorer Nain Singh only twice observed rain to fall, to the amount of some three inches on each occasion, but he reported the Kyi Chu to be completely frozen over for six weeks.

As regards temperature it may be said that in no time of the year would the climate of this division preclude military operations. The records of the Tibet Mission in 1903-04 show that the temperature in summer varies from an average minimum of 40° Fahrenheit to an average maximum of about 84°, while in winter (December, January, February and March) the average maximum was about 45°, and on only one occasion did the thermometer drop below zero.

Of the diseases found in this division of Tibet, small-pox appears to be the most prevalent. It frequently ravages the country like a plague; and in 1900 over 6,000 people succumbed to the disease in Lhasa alone. Although the Chinese doctors in Lhasa employ inoculation for its prevention, and special hospitals have been erected for the reception of small-pox patients, the Tibetans trust to camphor and a few other aromatics and charms. Venereal diseases are also prevalent, 15 per cent. of all cases treated at the Civil Dispensary at Gyantse in 1905 being sufferers from this malady. Boils, ulcers, and various diseases of the skin are common; but diseases of the eye, notably cataract, are said to outnumber the total of all other complaints, and are probably due to the glare and to the clouds of dust which sweep down the valley of the Brahmaputra, and over its sandy plains.

As regards the complaints to which our troops (especially natives of India) are liable in these high altitudes, the experiences of the Principal Medical Officer with the Tibet Mission Expedition of 1904 may be quoted.

"The results of this exposure to the cold and altitude were chiefly pneumonia, frostbite, and mountain sickness.

"Pneumonia occurred mainly and most fatally in those exposed to night sentry and picket duty when the cold was most intense. Although the rarefied air of the high altitude predisposed to this specific disease, owing to the lessened atmospheric pressure permitting the blood to come nearer the surface of the lung and thus favouring congestion of the lungs, whilst the latter were forced to work more rapidly on account of the lessened oxygen in a given bulk of air, still it was found that it was actual exposure to the cold air which was the chief predisposing factor in this disease. As a person attacked by pneumonia dies mainly from want of oxygen, tubes of this gas were sent for from India for the treatment of the cases.

"Frostbite was not so frequent or so severe as would have been expected. The cases were mostly mild ones of fingers and toes, and chiefly among followers who neglected to carry out the orders issued for its prevention. Only two fatal cases occurred, one of them in a postal clerk who sat at a desk all day, and so cramped up the circulation that he died of gangrene of the legs. Paradoxical as it may seem, most of the cases of frostbite were due to burns, consequent on thrusting the frozen limb close up to a fire.

"Snow-blindness caused very little trouble, as all the men were provided with green and smoked glass goggles. As this affection is due to an intense congestion of the conjunctive or membrane over the eyeball, the treatment practised by Captain T. B. Kelly of the Indian Medical Service is worth recording,



namely, by the application of adrenaline, which is so constringent as to blanch at once the most congested surface.

“Hoarseness and sore-throat every one suffered from more or less. It was generally temporary, but in those exposed to the cold of the high passes and the acrid smoke of the *argol* fires, the hoarseness lasted for several weeks after leaving those places.

“Mountain-sickness was experienced by nearly everyone more or less at the high altitudes, in the form of headache and nausea, with occasional retching and vomiting. The headache and sensation of muscular fatigue felt at high altitudes are probably produced by the lowered temperature of the atmosphere, and the effects of the blood pressure of excessive exertion in the rarefied air. Mountain-sickness is also undoubtedly induced by indigestion, hence probably the custom of hill-men to chew cloves or ginger when crossing high passes. The remedies we found most efficacious were phenacetin with brandy and purgatives, and to get down to a lower altitude in the more obstinate cases.

“Indigestion, which was widely prevalent, was largely due to bad cooking, arising partly from hurry, but chiefly from insufficient fuel, and the lowered boiling-point of water, which, falling about two degrees for every thousand feet of ascent, was often reduced to near 180°F., a temperature insufficient to burst the starch grains of rice, potatoes, and peas. Even flesh meat required boiling for a longer period than usual to soften its fibre.

“There was no scurvy at all, notwithstanding that fresh vegetables were often not procurable. This absence of scurvy under such circumstances was doubtless owing in great measure to the large issue of fresh meat throughout the campaign.”

Little need be said regarding the climate of the third physical division of Tibet,—the Province of Kham. In the eastern valleys the climate is said to be Himalayan in character, and most salubrious. The winters are long, and the summers, though short, remarkably hot considering their elevation. Snow falls in considerable quantity and lies on the mountains from the end of September to the end of May. The rainfall is also heavy in June, July, and August. Travellers in this region (who are few) complain of the heat in the more enclosed valleys during the summer months, and, considering the elevation, remarkably high shade temperatures are recorded. Malaria is not unknown in these enclosed valleys, but the disease cannot be said to have assumed the proportions it has attained in India and other tropical countries. It is said to be especially prevalent in Lower Za-yul which has an elevation of not more than 4,000 feet. The climate of these lowlands is so repugnant to the Tibetan highlander that he is said to regard them and utilise them as a penal settlement.

The diseases of Southern Tibet are common to the eastern districts as well, but in a less formidable degree. In eastern Kham, leprosy is said to be prevalent, but this disease is probably contracted from over the Chinese border. Venereal diseases are also common. Goitre is especially prevalent among



the women, particularly so in the more eastern districts, where 75 per cent. of the people are said to be afflicted with this disease.

Generally speaking, Eastern Tibet is the healthiest portion of the country, and neither the climatic conditions nor the prevailing diseases are such as to affect materially the conduct of military operations by either British or native troops.

A few remarks may be added regarding the snow-line in Tibet. Except

**¶Snow-line in Tibet.**

in the eastern districts, it may be drawn at an elevation considerably higher than the summit of Mont Blanc. Thus it is that the southern face of the Himalaya carries perpetual snow down to a much lower limit than does the northern or Tibetan face. In the central districts of Sikkim and Bhutan, the snow-line ranges between 15,000 and 16,000 feet, but across the border into Tibet it is found at about 19,000 feet. This, of course, refers to open mountain sides offering a fair exposure to the sun and winds: in sheltered gullies and hollows facing north, perpetual snow is to be found at elevations of not more than 14,000 feet. East of meridian 92°, the limit of perpetual snow drops lower, and among the ranges about the source of the Yellow River it has been fixed by Russian authorities at 16,000 feet. At Batang it is said to be under 15,000 feet.

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## CHAPTER IV.

### RESOURCES.

#### AGRICULTURE.

In spite of adverse climatic and physical conditions, considerable portions of Tibet are capable of cultivation; but since the requirements of a dwindling population are small, and a national monastic system robs the land of a large proportion of available labour, more than half of the arable soil is lying fallow. Nevertheless, the food-supply produced in the richer valleys is in excess of the requirements of the people, but, owing to the weight of cereals and the expense of transport, the surplus is never exported. Large amounts are stored by landlords, and in State granaries, being received in payment of rent; and in this connection it may be noted that in the dry climate of Tibet grain keeps in condition for 20 years or longer. In the higher altitudes agriculture is carried on under the most adverse conditions. Here the productive capacity of an unsuitable soil is not sufficient to cope with the demand; and as the inhabitants of the more fertile valleys do not find it profitable to trade in food-stuff with their neighbours, the latter are compelled to import grain from over the border.

The cultivated areas comprise, for the most part, the river valleys of southern and eastern Tibet, the latter being particularly productive on account of their generally milder climate. Cultivation is, however, carried on to a very limited extent on the southern limits of the Chang Tang, notably about the Tengri Nor and the Dangra Yum Tso. In the Brahmaputra valley and the valleys of its affluents (particularly the Kyi Chu and the Nyang Chu\*), cultivation is found more or less continuously east of Lhatse; but west of that town, owing to the increased altitude and the unsuitability of the soil, cultivated patches are of rare occurrence. Further west, the spacious alluvial flats, through which flow the upper reaches of the Karnali, the Sutlej, and the Indus, provide facilities for agriculture on a small scale. The district of Taklakot in the Karnali basin is renowned for its fertility, but barley, peas, and mustard are the only crops grown. It is only near its source that the valley of the Sutlej provides facilities for irrigation, but even west of Toling, where the river and its affluents flow through narrow sandstone gorges several hundred feet in depth, the inhabitants are almost entirely agriculturalists. Cultivation is of necessity confined to the *nala* beds, for neither grass nor shrubs can grow on the mountain sides. Nevertheless, sufficient grain is produced to meet the requirements of the inhabitants, and a little trading is carried on with the surplus.† In the Indus valley cultivation is confined to small areas around the villages. The districts of Tashigong and Namru produce enough grain to maintain the people, but elsewhere it has to be brought in from outside.

The upper Brahmaputra.

The Karnali, Sutlej and Indus valleys.

\* The richness of the latter valley finds expression in its Tibetan name which, translated, means "Land of Delicacies."

† In the Tsaparang Jong, the surplus grain is exchanged for salt from Rudok. (Report on the trade between the Punjab and Tibet, 1907.)



In the lower Brahmaputra valley, and in Eastern Tibet, every available spot in terrace or alluvial flat is turned to account. In the central provinces of U and Tsang, which come under the partial influence of the Indian monsoon, the valleys yield long flats of rich soil, and numerous streams of rapid current from the uplands render irrigation comparatively simple. In the immediate vicinity of Lhasa every cereal and vegetable possible to Tibet is raised, and the cultivation is continued to a considerable distance up both the Pemo and Kyi rivers. The fields are small, and separated by low walls of massive stone. Possibly the most promising part of Tibet is that portion of the Brahmaputra valley which lies east of the longitude of Lhasa. The side valleys are rich and well-cultivated, and all native explorers who have visited this region unite in praising its climate and scenery. O'Connor calls it the "Garden of Tibet:" the explorer K-P, who has penetrated farthest down the course of the Brahmaputra, speaks of every kind of cultivation along it. In eastern Tibet the valleys are less naturally adapted to cultivation, for the

**Eastern Tibet.** sides are deep and precipitous; nevertheless agriculture is the chief pursuit of the inhabitants, and the mountain sides are terraced in the Himalayan fashion. Further south the little-known valleys of Za-yul and Po-yul are said to be the centres of Tibetan industry, with every evidence of considerable agricultural wealth.

Before proceeding to speak of Tibetan agriculture in detail, it is worth noting the remarkable contrast between the nature of the country which faces towards Russia in the north, and that which adjoins British territory or dependencies in the south. In the one case there stretches a barren and waterless tract, producing, in Wellby's words, "no vegetation higher than an onion"; in the other lies a genial and well-watered valley, producing abundant crops of the richest quality.

The most popular of the cereals produced in Tibet are barley and buckwheat, especially the former. Barley is sown about March and reaped in August.

**Barley.** It is of two kinds; *soa* or *so-wa*, a thick-shelled variety mostly given to cattle as fodder, and *ne*, the beardless, loose-grained variety, (known commercially as *grim*), which needs little manure or depth of soil and ripens at greater altitudes than any other grain. It is from *ne* that the staple food of the country—*tsam-pa*—is prepared, as well as *chang*, the favourite beer.\* The reaping is done with a sickle, the straw being cut close to the ground and tied up into small sheaves about the size of a double handful. It is then stacked until November, when it is ground. At Phari, which is 14,300 feet above sea level, no crop will ripen; but notwithstanding this, barley is sown, and is cut for fodder during the winter.

Buckwheat is known as *dao* or *brau*. It is generally sown in May and reaped in September, and no other crop is sown on the land after the buckwheat is reaped. The amount of seed is from one-third to one-half the measure of barley seed sown on the same area. It is not stacked after cutting, but threshed at once. The grain is separated by rubbing the heads together with the hand or by treading out with the feet. It is then threshed with a flail, winnowed, and spread out in the sun to dry.

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\* *Ne* is again distinguished by three different varieties,—*yangma* (a two months' crop) *chhe-ne*, and *ser mo* (the best kind, which matures later than any other).



Of other cereals, wheat is raised where possible, but it often fails to ripen above 11,500 feet. It is sown in October

**Wheat.**

or November, and reaped in the following August. It is then stacked until November, when it is threshed and ground.

**Other cereals.**

It is consumed chiefly by the richer classes ; the peasantry profess to dislike it. Other grains raised in small quantities are millet, maize, and rape. Rice grows nowhere in Tibet, but is imported, chiefly from Assam.

The favourite crops in Tibet are root-vegetables. Radishes are the first choice, and in some parts, are allotted as much space as barley. The leaves are cut off

**Vegetables.**

**Radishes.**

**Turnips.**

and hung up in strings to dry, being subsequently used as a vegetable. Turnips are sown in August on the fields that have produced barley, and are dug up in the latter part of October. The smaller ones are used for feeding cattle ; the large

**Potatoes.**

ones are stored in straw in the houses, or buried in straw-lined pits. Potatoes are sown early in the year, and dug up in July or August. They are of two kinds ; *sho-ko* are white, and *to-ma* are small, sweet, and red. They are largely cultivated on the Chinese border. Other

**Other vegetables.**

vegetables planted are carrots, onions, beans, peas, and cabbages.

Mustard is grown everywhere in several varieties, but it is especially plentiful in Kham and south-eastern Tibet. It

**Mustard.**

is reaped in July and August, and, when dried, the seeds are rubbed off with the hand and threshed with a flail. The flour, which is ground in a hand-mill, is used for feeding yaks. The oil is

**Mustard-oil.**

pressed from the seeds by rolling and crushing them with the hands on a wooden trough after they have been dried in the sun. Very little is made, as it is only used by the women as a hair-oil.

A considerable amount of fruit is grown in the Brahmaputra valley and eastern Tibet ; walnuts, apricots, peaches,

**Fruit.**

and pears are the varieties most frequently met with.\*

The methods of cultivation and sowing appear to be the same with regard to all crops. The field is first ploughed,

**Methods of cultivation.**

levelled with a hoe, and then manured ; the seed is then scattered broadcast on the surface and ploughed in. No harrow is used, but women follow the plough and level the furrows with a

**Agricultural implements.**

hoe. The agricultural implements are very simple. The plough is similar in construction to the plough of India, though the ploughshare is more often a wooden spike fitting into the wooden block of the plough than an iron point. The hoe is of the form used in India, but generally narrower in the blade. A pointed spade is also used, and, for weeding, a three-pronged fork. The flail is made in two pieces ; the longer (which is about five feet in length) has a wooden pin bound to it at right angles, which passes through a hole in the end of the shorter piece, so that the long piece can revolve freely on the pin. The shorter piece is held in the hand, and the longer is the blade of the flail.

\* For amount of grain, vegetables, etc., obtained from the country during the expedition of 1904, see section on "Productions."



In Eastern Tibet the abundance of fuel allows of iron-smelting operations being carried on, and here the agricultural implements are of a more advanced type.

### COMMERCE.

#### Trade routes.

The more important trade routes in Tibet are as follows :—

- (1) From Lhasa to Leh (in Ladakh), *viâ* Shigatse, Lhatse, the Miriam La, the Manasarowar Lakes, and Rudok.
- (2) From Lhasa to Si-ning (in the Chinese Province of Kan-su), *viâ* the eastern Chang Tang and south-eastern Tsaidam.
- (3) From Lhasa to Ta-tsien-lu (in the Chinese Province of Ssu-chuan) *viâ* Jyekundo.
- (4) From Lhasa to Ta-tsien-lu, *viâ* Chiamdo.
- (5) From Lhasa to Odalguri (in Assam), *viâ* Chetang, Tsö-na Jong, and Tawang.
- (6) From Lhasa to Siliguri (in Bengal), *viâ* the Kamba La, Ralung, Phari, Chumbi, the Jelep la, and Kalimpong.
- (7) From Lhasa to Katmandu (in Nepal), *viâ* Shigatse, Dingri, and Kirong.\*

By means of these routes the Tibetans carry on a certain amount of export and import trade with the neighbouring territories of India (by routes 1, 5, and 6), China (by routes 2, 3, and 4), Nepal (by route 7), and Ladakh (by route 1). An insignificant trade is also maintained with

#### Trade with Mongolia.

Mongolia, which appears to consist entirely of a great caravan, travelling yearly through Tsaidam to Lhasa, and starting usually in the month of June. It would seem that the object of this enterprise is as much religious as commercial, for we are told that the commodities most valued by the travellers are *objets de vertu* and curiosities which may gratify the taste of the Dalai Lama and attract his attention to the supplicant. For this purpose elegant Japanese and Chinese wares are much prized, as are lacquered boxes, vases, etc. Besides such trifles, cloth fabrics, coloured glass ware, and fire-arms are imported into Tibet. No estimate can be formed of the value or extent of this trade.

In addition to the routes enumerated above, there are many other tracks of lesser importance, while each main route has its branches facilitating inland and trans-frontier communication. Of the latter the most important are those which branch off the main Leh-Lhasa road and cross the frontier into Spiti, Bashahr, Tehri Garhwal, and British Garhwal.

#### Opening of trade marts.

With regard to Trade Marts, clause II of the Lhasa treaty of 1904 runs as follows :—

“The Tibetan Government undertakes to open forthwith trade marts, to which all Tibetan and British subjects shall have free right of access, at Gyantse and Gartok, as well as at Yatung. The Regulation applicable to the trade mart at Yatung under the Anglo-Chinese Convention of 1893, shall, subject to such amendments

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\* For further particulars of these routes, see Chapter V (Communications).



as may hereafter be agreed upon by common consent between the British and Tibetan Governments, apply to the marts above mentioned. In addition to establishing marts at the places above mentioned, the Tibetan Government undertakes to place no restrictions on the trade of existing routes, and to consider the question of establishing fresh trade marts under similar conditions if development of trade requires it."

Trade has not, however, up to the time of writing, shown any great expansion as a result of these stipulations.

#### Trade with India.

The figures below show the total value of import and export trade with India in merchandise and treasure from the year 1902-03 to the year 1907-08.

	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<b>Merchandise.</b>						
Punjab . . . . .	2,40,498	2,53,536	1,87,698	1,78,069	1,49,105	2,39,363
United Provinces . . . . .	11,28,561	10,58,989	9,01,318	10,93,865	12,56,475	12,41,031
Bengal . . . . .	17,73,842	7,49,175	11,49,740	24,79,996	21,00,854	25,54,718
<b>Total . . . . .</b>	<b>31,42,901</b>	<b>20,61,700</b>	<b>22,38,756</b>	<b>37,51,930</b>	<b>35,06,434</b>	<b>40,35,112</b>
<b>Treasure.</b>						
Punjab . . . . .	1,750	14,400	3,000	7,500	5,200	1,600
United Provinces . . . . .	49,368	23,704	62,618	46,809	76,235	63,208
Bengal . . . . .	1,35,990	87,764	2,75,034	5,48,382	3,60,688	9,45,490
<b>Total . . . . .</b>	<b>1,87,108</b>	<b>1,25,868</b>	<b>3,40,652</b>	<b>6,02,691</b>	<b>4,42,123</b>	<b>10,10,298</b>
<b>GRAND TOTAL . . . . .</b>	<b>33,30,009</b>	<b>21,87,568</b>	<b>25,79,408</b>	<b>43,54,621</b>	<b>39,48,567</b>	<b>50,45,410</b>

From the above table it will be seen that though the value of the trade between India and Tibet is showing a tendency to increase, it is nevertheless miserably small, considering the relative positions of the two countries and their respective needs. Tibet produces certain raw materials suitable for export to manufacturing countries (such as wool, hides, etc.,) in practically unlimited quantities; while India could supply Tibet with all the manu-

factured articles of which she stands so much in need. But in spite of the treaty

#### Obstruction to trade.

of 1904 and the endeavours of the British Government to stimulate a free interchange of commodities by repairing roads, the removal of trade dues, etc., the Tibetan Government, instigated by the Chinese officials, have persisted in an obstructive policy, and trade continues to be hampered by every kind of restriction. Indeed, the terms of the treaty have been on several occasions deliberately violated, a specially obstructive attitude being



maintained during Mr. Gow's tenure of office as Chinese Commissioner at Gyantse in 1906 and 1907. This policy of obstruction seems to have dated from the establishment of Chinese influence in Lhasa.

The obstruction to commercial intercourse with the outside world has left its mark on the social system of the country. The check on export trade has deprived the people of the opportunity to make industry profitable, with the result that gravitation to the idle life of the monasteries has been made easy. By the time industrialism in Europe had forced the opening of distant and difficult markets, the lamaic system had obtained on Tibet a grip that has stifled all enterprise.

The chief routes by which the Indian trade is carried on are *viâ* Odalguri into Assam; *viâ* the Jelep la, the Nathu la, and the Lachen Valley into Bengal, *viâ* the Mana, Niti, Untadura, Dharma, and Lippu Lekh passes into the United Provinces, and *viâ* Leh and Lahul into Kashmir and the Punjab. The principal articles of export are wool, pashm, salt, borax, musk, gold-dust, horses, ponies, mules, yaks' tails, and hides; the chief imports are cotton piece-goods, woollen manufactures, sugar and goor, dried fruits, rice and barley, hardware, enamelled iron-ware, tobacco and snuff, oil, precious stones, silver, coral, and China and Japan ware.

Articles imported and exported. The trade between Assam and Tibet is small, due in a large degree to the bad state of the road through Tawang. It should, however, prove capable of considerable development, as the route from Tsö-na Jong—an important mart—passes through a rich and populous tract. It taps the district of Kongbo, famous for its breed of mules, of which there are said to be several thousand in the country. Other possible trade routes from Assam into Tibet are the valley of the Dihang through the Abor country, and the valley of the Lohit Brahmaputra through the Mishmi country. Of these, the latter would be the most valuable from a purely commercial point of view, since it passes through the fertile district of Za-yul, and affords means of communication with the rich valleys of eastern Tibet, and the Chinese province of Yun-nan. At present both these routes are barred by the obstructive policy of the frontier tribes, and there seems no hope of a line of commercial traffic being established in this direction until some opportunity may arise of teaching these savages that the free movement of foreigners through their country does not necessarily mean the loss of their independence. The commercial and strategical importance of these routes cannot be over-estimated, and, if ever the trade between India and Tibet is to be carried on by roads presenting no formidable passes and no high altitudes, our relationship with the tribes of the north-east frontier will have to be placed on a more satisfactory footing.

Trade between Assam and Tibet. The trade between Tibet and Bengal is the most important between the two countries, for by the Chumbi valley route the two capitals are within easy reach of each other, and the rich products of the Tsang-po valley find a natural outlet to the plains of Bengal. The Chinese appear to have found the sea routes to Calcutta more profitable than the overland route *viâ* Batang, and many of the goods which once found their way by the latter road to Lhasa now pass through the Chumbi valley.

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The imports into Western Tibet from the United Provinces may be broadly classed as articles of food and articles of clothing. Except for one or two districts such as Taklakot and Daba, the whole of Western Tibet is dependent for its food-supply on the United Provinces and Nepal. "No surer way of crippling Western Tibet can be imagined than the issue of a summary order forbidding trade between the two countries. It would mean that the greater part of the people would starve." The official capital of Western Tibet is Gartok, where the British Trade Agent is stationed, but it is not a market except for 15 days in the year, and from a commercial point of view is unimportant.

The local trade between Ladakh and Tibet amounted for the year 1907-08 to Rs.1,77,145, of which sum the value of the exports from the Chang Tang greatly exceeds the value of the imports from Ladakh.

A very considerable exchange of commodities takes place on the northern Nepal frontier. A number of tracks lead up the valleys of the Nepal rivers and cross the Himalayan ranges into the Tibetan plateau by more or less difficult passes. On each of the main routes some mart is recognised by traders as the emporium for their goods, and here the Nepalese and Tibetan merchants have their agents. In Western Nepal the most frequented route is that which runs up the valley of the Gandak river past Kagbeni and Loh Mantang, and crosses the central Himalayan chain by the Ghotu La, descending thence to the Tsang-po near Tradum. On this road Loh Mantang is the trade depôt, and considerable quantities of goods are exchanged. The principal exports from Tibet are salt and wool, and the imports are rice and other grains. Further east two roads lead from Katmandu across the frontier. Of these the most easterly *via* Nyanam or Kuti is the direct road to Lhasa, but is exceedingly difficult and dangerous. The other by Kirong is in better repair and is much used by traders. At Kirong some exchange of merchandise takes place but the chief mart is the small town of Babuk to the north-east and just south of the Central Himalayan chain — crossed here by the No La. Tibetans and Nepalese from all parts assemble at Babuk. Salt, wool, felt, and borax are brought here from Tibet, and tobacco, rice, gram, copper plates, etc., are imported from Nepal. The road across the No Pass goes direct to Tradum on the Tsang-po, but Dingri can also be reached from Babuk, whence roads run to Lhatse, Shigatse, etc. In eastern Nepal tracks lead up the valleys of the Kosi and Arun rivers into Tibet, but they are chiefly for local traffic, and the trade which passes over them is inconsiderable.

The trade between Tibet and Bhutan is insignificant. The exports include Chinese tea in bricks, broad cloth, dried fish, salt, soda, nitre, and a little sulphur. Trade with Bhutan. The imports are rice, madder, lac, goor, cotton, cloth, timber, rattan canes, and split bamboos.

The bulk of the trade between Tibet and China passes through Ta tsien-lu; the Si-ning route is used chiefly by pilgrims to and from Lhasa who seize the opportunity to do a little trading on the way. The principal exports are musk, gold-dust, wool, deer horns, and borax. By far the greatest import



from China is brick tea. Other imports *viâ* Ta-tsien-lu are cotton goods, silks and satins, tobacco (which in Tibet

The tea trade, is chiefly ground down into snuff), and a little raw cotton. Gun-barrels are imported to a considerable extent from Kin-chuan, but this comes rather under the head of inland trade.

The following table gives a summary of the Sino-Tibetan trade *viâ* Ta-tsien-lu in 1905 :—

## IMPORTS.

Article.	Quantity.	Value.
	lbs.	taels.
Brick tea . . . . .	11,377,333	948,591
Cottons, native . . . . .	..	46,500
Silks and satins . . . . .	..	1,500
Silk khata . . . . .	..	20,000
Tobacco, leaf . . . . .	68,750	6,000
Foreign goods . . . . .	..	30,900
Total . . . . .	..	1,053,491

## EXPORTS.

Articles.	Quantity.	Value.
		taels.
Musk . . . . .	24,533 ozs.	300,000
Gold-dust . . . . .	8,000 "	272,000
Wool, sheeps . . . . .	533,333 lbs.	48,000
Medicines . . . . .	..	4,600
Borax . . . . .	26,667 lbs.	3,500
Skins, sheep . . . . .	145,000 pieces	30,000
Furs—		
Fox . . . . .	11,000 pieces	9,000
Lynx . . . . .	600 "	2,000
Total exports . . . . .	..	669,100
Add—Total imports . . . . .	..	1,053,491
Total trade between Tibet and China <i>viâ</i> Ta-tsien-lu . . . . .	..	1,722,591*

\* From report by Mr. A. Hosie, His Majesty's Consul-General at Chengtu, on a journey to the eastern frontier of Tibet. Presented to both Houses of Parliament, August 1905.

Besides Ta-tsien-lu and Si-ning there are other important centres of the Sino-Tibetan trade which require passing notice. In Kan-su, a considerable interchange of commodities takes place at the towns of Kuei-te, Tankar, and Mobasen between the Koko Nor



Tibetans and the local Chinese. Sungpan, in Ssu-chuan, is a very important trading centre for northern Kham and Kyarong. The estimated value of the trade is some £200,000 annually, and the greater part of it is in the hand of the Muhammadan merchants, who have a monopoly for the supply of tea. Of other towns in Ssu-chuan which trade with Tibet may be mentioned Kuan-Hsien, which deals direct with the Chinese merchants settled in the Kyarong country. In Yun-nan, the chief centres of Tibetan trade are the towns of Atun-tse, Li-kiang, and Tali. These important centres tap the fertile districts of Za-yul and Tsarong.

The inland trade of Tibet is focussed at Lhasa and Shigatse, whither merchants converge from all parts of the country during the winter months. The great Lhasan fair is generally held in November or December (when the imports mostly arrive), and caravans and merchants time their arrival in the capital accordingly.

The chief centres of trade in Eastern Tibet are Jyekundo, Derge, and Chiamdo. Jyekundo owes its importance to its situation at the junction of roads from Lhasa, Tsaidam, Ta-tsien-lu, Derge, and Sungpan, and does a thriving trade in both foreign and inland business. Derge, besides being an important agricultural centre, deals largely in leather and metal work of native manufacture, and its goods find a ready sale all over the country. The importance of Chiamdo as a commercial centre is its situation on the Lhasa-Batang-Ta-tsien-lu road. Other centres of trade in Tibet are Chetang, Tsö-na Jong, Gyantse (more in its capacity as a trade mart, than for any other reason), Lhatse, Dayul, Menkong, Talung (where an annual fair is held), and Cholkakang.

#### LABOUR.

The hardy disposition and powers of endurance on little food possessed by the natives of Tibet entitle them to a high position among manual labourers, but owing to the scantiness of the population the number available is very limited. Skilled labour is practically unknown except among the specially trained lamas. The rude methods employed at the gold-fields can scarcely be termed skilled labour, for perfection in the process can be attained in a few days. The rate of hire is  $3\frac{1}{2}$  annas per diem; labour in other forms is paid for as a rule, in grain, cloth, food, etc.

Most travellers unite in expressing a high appreciation of the Tibetan as a transport driver, not only on account of the care he bestows on his animals, but also for the rapidity with which he can load and unload, as well as for the careful supervision he exercises in regard to the proper adjustment of loads both before and on the march.

The whole of the carrying work of the Tibet Mission Expedition of 1904 was performed by specially enlisted Cooly Corps; and the services of the inhabitants were only occasionally demanded locally for some special purpose.

In Eastern Tibet, especially among the Mantzu tribes, much of the carrying work is done by porters, as the country is less suited to the free movement of animals. Very short stages and very light loads are the rule, and the carrier will take no responsibility for the safety of his load. In certain of the Mantzu states no remuneration is expected, and the work is usually performed by women and girls, even small children being pressed into the service.



## INDUSTRIES.

Tibet itself boasts of few home industries. The gold-fields of the Chang Tang afford employment to some hundreds of workmen, but their methods are so primitive that the process can scarcely be called an industry. It will be fully dealt with later under the heading of Productions.

**Gold-digging.** Lhasa contains an arsenal and mint, and produces a limited amount of mechanical art, metal work, and woollen manufactures. The arsenal, which lies on the left bank of the Kyi Chu, is little more than a shed running round a square. "It contained several good lathes of local make for boring gun-barrels and manufacturing cartridges, and a brass-bound driving fly-wheel, also some saws, files and other tools of English manufacture, a large number of partially made breech-blocks, bayonets and cartridges, and a quantity of sulphate of copper, sulphur, graphite, and a few guns. Another and larger arsenal is said to lie about four miles off amongst the hills." The manufacture of arms cannot, however, be said to be a Tibetan industry, for the work is carried on in the arsenal under the supervision of two Muhammadan artisans from India, who have been engaged for over ten years. The latter have, it appears, been making periodical visits to Calcutta and smuggling back the necessary materials.\*

Gunpowder is manufactured at Chollhakang on the Brahmaputra in the Kongbo district, where the article is turned out in considerable quantities.

**Arsenal at Lhasa.** Rugs, carpets, and saddle-rugs are manufactured in Gyantse and Khamba Jong. Copper-ware and metal-work generally are produced at Derge. Ironware comes chiefly from over the Chinese border. An important iron-foundry is situated at Nam-tien-pa. At Jyekundo, articles of clothing are turned out in large quantities. Traders from Lhasa visit this town every year on their way to Ta-tsien-lu, and supply it and the whole of Eastern Tibet with cloth (*trunk*) out of which the gowns of the wealthier classes and all the lamas' clothes are made. Eastern Tibetans generally are expert potters. The higher arts, such as painting, calligraphy, embroidery, carving, etc., are confined to the monasteries, where selected lamas are trained in these accomplishments.

**Other industries.** In conclusion it may be mentioned that a considerable impetus in the industrial enterprise of the country is to be looked for in the near future. The Tsarong Shape, while *en route* from Lhasa to Simla in connection with the revision of the Tibet Trade Regulations, paid a visit to His Majesty's Mint at Calcutta. He also visited the firm of Messrs. Burn & Co., and requested them to prepare estimates for the erection in Tibet of a mint, gun factory, suspension bridges, pumping plant, candle-making and weaving machinery, glass-making plant, etc.

## PRODUCTIONS.

Excluding live-stock (which will be dealt with later under the heading of "Animals"), the chief productions of Tibet are wool and pashm, hides and yak-tails, gold and gold-dust, borax, salt, musk, rhubarb, medicinal herbs,

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\* See also Chapter IX, Military Armament.



timber, some other metals (iron, copper, silver, agate, mercury, and lead), and small quantities of agricultural and dairy produce.

Of the above, wool is by far the most important, and the quantity capable of production in the country is practically unlimited. Throughout the whole of Tibet

#### Wool.

vast flocks of sheep and goats are reared. Dr. Sven Hedin wrote in 1907 that "the wool-producing country no doubt extends much further than has hitherto been supposed. As a matter of fact, the whole of Tibet I have crossed this time produces wool, and certainly there can be a great increase in future, as enormous parts of the northern and central Chang Tang have excellent grass but are practically uninhabited." Mr. Cassels considers that in Western Tibet there is enough grass for double or treble the present number of sheep. In winter Tibetan sheep are grazed on the higher lands, from which the snow is quickly blown away by the winds; in summer they are kept in the *nalas*, where the snow has lain longest and where water is to be found. As already indicated, the bulk of the wool obtained is available for export, but a certain quantity is used for making the coarse garments of the people.

The common breed of goat in Tibet is that known as the shawl wool goat

#### Pashm.

from the fact that beneath the outer coarse covering there grows a thin coat of fine down-like hair. It is this that is known as *pashm*. Though not so fine as that imported from Yarkand, the Tibetan *pashm* was for a long time the only kind imported into Kashmir and the Punjab, and hence it has acquired a considerable fame in the form of Kashmir shawls and Rampur *chaddars*. Goats are shorn once a year, and the *pashm* is combed off in the early summer after the hair has been cut short with a knife. Being loose, it comes off easily, but is mixed with coarse hair, and it is this mixture, not the picked *pashm*, which is bought by the Kashmir and Punjab traders. All the *pashm* produced in Tibet is exported, none being retained for local use.

Hides and yaks' tails are exported in large quantities, but, the supply being practically unlimited, the demand

#### Hides.

is capable of considerable expansion. The skins of sheep that die are carefully collected and dried; some are used locally for clothing, but the majority are purchased by Ladakhi trader for *poshteens*. The skins of lambs born dead, or dying soon after birth, are much prized for ornamenting caps, coats, etc.

Gold is the most important mineral product of Tibet. It is found in the sands of the Chang Tang and in most of

#### Gold.

the river beds throughout the country. Up to the present only alluvial gold has been worked, and until the metal has been discovered in quartz, it will be impossible to speak with any certainty of the possibilities of Tibet as a gold-producing country. Widely differing opinions have been expressed on this question. Sir T. Holdich writes: "There can be no doubt that Tibet is a great natural treasure house of gold." On the other hand, Mr. Calvert, who has personally visited some of the gold-fields of the south-western Chang Tang, states that the want of accurate information has led to the circulation of exaggerated reports on the subject.

The principal gold-fields in Tibet proper lie along the southern limits of the Chang Tang, stretching in a south-easterly direction from the



neighbourhood of Rudok towards the Zilling Tso. The chief centre of work in south-western Tibet is Thok Jalung, which lies about 7 marches north-east of Gartok. It is surrounded by numerous other fields, some of which have lately been visited by Mr. Calvert, in whose report complete lists will be found. Rawling discovered extensive diggings in the north-western Chang Tang, and heard also of a particularly famous gold-field, named Munnak Thok, which was said to give employment to 500 miners. Lately, Dr. Sven Hedin reports the discovery of important fields, which, though definite figures of latitude and longitude are not yet available, appear to lie about 86 degrees east longitude and somewhat south of the 34th parallel of north latitude. Another auriferous tract is to the south-east of the Yamdrok Tso on the north of Bhutan, at the source of the Subansiri or "Golden River" of Assam, in the lower reaches of which are many colonies of gold-washers. The Nepalese representative at Lhasa informed Colonel Waddell of an important reef a few days journey due east of Lhasa, from which the best gold is supposed to come. On the borders of Kham gold is found everywhere. The states of Chala, Litang, Chantui, Kyarong, and Muping are especially famous for their output, and gold is washed in all the rivers and streams. Besides these, a considerable number of gold-mines are enumerated by the Abbé Desgodins, notably on the banks of the lower Yangtse and Mekong. The working of the gold-mines at Tai-ling, in the Mantzu state of Kestha, by order of the Chinese officials, was largely responsible for the disturbances which took place in Western Ssu-chuan in 1905. Formerly some 7,000 to 8,000 ounces of gold were exported annually from Kham to China, but this amount is now said to be reduced by about one-half.

Borax is found mixed with sand on the banks of several lakes and streams in Tibet, and exists in great quantities.

#### Borax.

There seems no doubt that Tibet could supply a great deal more borax than is at present exported, but the people of Bong-ba informed Mr. Calvert that they have ceased to collect it as there is not sufficient demand.

Salt is found very widely distributed in Tibet on the mountains, in the deserts, and on the banks of rivers and bitter lakes. The salt exported to India

#### Salt.

is chiefly derived from the latter source; it is dissolved in the lake water, and, after the dirt has settled, the clear solution is evaporated. There are said to be some 40 or 50 salt mines in Eastern Tibet, along both banks of the lower Mekong near the 29th degree of latitude. Here pits are dug by the banks of the river and allowed to fill with water; the water is then taken out and evaporated in the sun, leaving a residue of salt. A given volume of water yields about one-tenth of its weight in salt. The salt is not pure chloride of sodium and is somewhat bitter; it is, however, fairly clean and much whiter than ordinary Punjab salt. The price of Tibetan salt is about 8 annas per sheep load of 24 lbs.; it was bought by the Commissariat of the Tibet Mission Force at Rs. 2-8 to Rs. 3 a maund, but at Lhasa it fetched as much as Rs. 4.

Musk, which is a secretion in the navel of a small deer, is a valuable commercial product. It is worth 10 to 12 times

#### Musk.

its weight in silver on the Tibetan frontier, and as much as 18 times at Chung-king. Musk deer are plentiful in the ravines and forests of the whole of Eastern Tibet, and range from the extreme south as far north as the Koko Nor.



Wild rhubarb grows in great abundance on the hill-sides of eastern Tibet and is said to flourish best at altitudes

**Rhubarb.** exceeding 9,000 feet. It is greatly prized in China for its medicinal properties, and is the most valuable of all the Tibetan herbs. It is found in smaller quantities throughout the country, and Wellby reports its existence at the foot of the Kwen Lun mountains. In Eastern Tibet the supply greatly exceeds the demand. The bulk of the rhubarb exported goes to Kuan Hsien and the Chengtu plain, and, further south, to Ya-chou; large quantities are also despatched direct to Shanghai.

The hill-sides of Kham are clothed throughout with magnificent forests, but the timber nowhere appears to have much commercial value except in the case of the cedar logs of Tsarong. No information is available regarding the market value of the timber of Eastern Tibet, but, from a purely military point of view, it will suffice to know that trees—especially firs—are abundant.

- Iron.** There are iron mines—
- (1) on the banks of the Mekong, four days' march north of Yerkalo;
  - (2) between the Mekong and the Salween, 2 or 3 days' journey south-west of Chiamdo;
  - (3) on the left bank of the Salween, below Batang;
  - (4) along the left bank of the lower Mekong.

- Copper.** Copper abounds near Batarg. Mines exist—
- (1) on the banks of the Yangtse Kiang, south of Batang;
  - (2) on both banks of the lower Mekong. One of these has to furnish annually to Peking 480,000 ozs. of copper.

- Silver.** Silver mines are found—
- (1) on the left banks of the Yargtse Kiang, south of Batang (three mines);
  - (2) on the banks of the lower Mekong (eleven mines);
  - (3) in Muping north-east of Ta-tsien-lu (nine mines).

Agate is said to be found on the extreme south-east borders of Za-yul near the Mishmi country.

**Agate.**

**Mercury.**

Mercury is found in seven localities on the banks of the lower Mekong.

**Lead.**

Lead is found in one or two places on the lower Mekong; and, in Western Tibet

near Giamchu on the banks of the Indus.

Sulphur is mentioned as an import from Tibet in the early Ladakh trade reports. Sherring mentions hot sulphur springs near lake Manasarowar. There is also a sulphur mine at a place called Napo on the lower Mekong.

**Sulphur.**

Saltpetre is found mixed with earth in many places in the Indus valley.

**Saltpetre.**

There is one mine near Gartok, and there are others in Chocho and Bong-ba. The earth is collected and placed in coarse bags, water is poured over it, and the solution of saltpetre is caught below in earthen vessels and then boiled till the excess water has evaporated. The salt then crystallises out in cooling. The total production is small; some of it is used locally and the rest finds its way to Lhasa, but practically none is exported to India or elsewhere.

For the reasons already stated, agricultural produce is small, but sufficient can be obtained to meet the requirements of a small force operating in the country. The available supply can best be illustrated by the following table

**Agricultural produce.**



which shows the quantity of *bhoosa*, barley, barley flour, grass (green and dried), *khaseel*, potatoes, other vegetables, and wheat obtained by the Commissariat Department of the Tibet Mission Expedition at the chief places between Chumbi and Lhasa, together with the prices paid for each article :—

Article.	CHUMBI.		PHARI.		TUNA.		KANGMA.		GYANTSE.		NAGARTSE.		CHAKSUM.		LHASA.	
	Quantities in maund.	Rate per maund.	Quantities in maund.	Rate per maund.	Quantities in maund.	Rate per maund.	Quantities in maund.	Rate per maund.	Quantities in maund.	Rate per maund.	Quantities in maund.	Rate per maund.	Quantities in maund.	Rate per maund.	Quantities in maund.	Rate per maund.
		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.
Bhoosa	..	..	..	..	2	2 4 0	3,147	1 8 0	3,277	1 8 0	714	1 0 0	1,930	1 0 0	734	1 0 0
Barley	..	..	5,727	2 10 0 to 8 0 0	34	4 8 0	1,190	3 6 0	397	3 0 0 to 3 8 0	1,732	2 0 0 to 3 8 0	2,682	3 0 0 to 3 8 0	10,675	2 9 0 to 4 11 0
Barley flour	..	..	..	..	..	..	24	4 0 0	40	3 4 0	..	..	..	..	363	4 0 0
Grass, Green	8,658	0 4 0 to 0 7 0	38	1 8 0	779	2 0 0 to 3 0 0	2,077	2 8 0	..	..	..	..	..	..	16,454	0 6 0
Grass, Dried	12,829	2 4 0	3,122	3 0 0 to 4 8 0	..	..	..	..	..	..	..	..	..	..	..	..
Khaseel	..	..	7,200 (green) 1,750 (dry)	2 10 0 4 0 0 to 4 8 0	..	..	..	..	..	..	..	..	..	..	..	..
Potatoes	106	5 0 0 to 6 8 0	152	5 0 0 to 6 0 0	..	..	..	..	..	..	..	..	..	..	..	..
Vegetables	..	..	..	..	..	..	..	..	41	3 8 0	..	..	..	..	539	2 0 0 to 4 0 0
Wheat	..	..	..	..	..	..	..	..	..	..	..	..	988	3 8 0	..	..

N.B.—For the quantities obtained at other places on the route to Lhasa, and particulars regarding other articles obtainable, see Report on the Supply and Transport arrangements with the late Tibet Mission Force, 1904.

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Of dairy produce, milk and eggs were obtained during the Tibet Mission Expedition as follows:—

**Dairy produce.**

9,024 pints of milk at Chumbi at 3 to 4 annas per pint.			
1,789	"	"	Phari " 1½ " 2 " " "
254	"	"	Kangma " 1½ " " " "
1,209	"	"	Gyantse " 1½ " 2 " " "
460	"	"	Lhasa " 1½ " " " "
908	eggs	"	Chumbi " 8 " 12 " per dozen.
53	"	"	Tuna " 12 " " "
1,183	"	"	Gyantse " 6 " 8 " "
360	"	"	Lhasa " 5½ " " "

*Tsam-pa* was bought at Rs. 5 a *maund* at Tuna, at Rs. 4-4 at Kangma, at Rs. 3-4 at Nagartse, and Rs. 3-7 to Rs. 4 at Lhasa (to the amount of 3,089

**Tsam-pa.**

*maunds*). The Chief Supply and Transport Officer of the Force reported that *tsam-pa* was not liked by the troops, but their long diet on it did not appear to produce any injurious effect on their health. It does not make up well into *chappattis*, probably owing to the absence of gluten in the meal, which seems to be extracted in the process of parching. It is most palatable when cooked like porridge.

An important consideration in the conduct of military operations in Tibet is the question of fuel. Trees are practically non-existent over a great part of the

**Fuel.**

country, and recourse is had to yak-dung, known locally as *chu-a* or *argol*. It burns well, producing great heat, and remains aglow for a long time, but gives out a volume of acrid smoke while burning, especially when it is damp. It is found all over the country, and the older the dung the better is the fuel. It was bought in large quantities by the Tibet Mission Force at prices varying from eight annas to a rupee per *maund*. Of other forms of fuel, *bhoortsa* is a strong smelling shrub, growing close to the ground with long and woody roots. It is found in considerable quantities all over the Chang Tang, particularly in old and dry river-beds, or salt-pans. Moss, when dead, makes first class fuel; it is a close-growing plant, the petals of which are so pressed together that it looks almost like stone. *Daman*, *yerke*, and *gyapshan* are other bushes which burn well.

**ANIMALS.**

Information regarding the live-stock resources of Tibet is yet too scanty to furnish any definite details of the actual number of animals available in each district of the country. In the case of the Chumbi valley reliable figures can be quoted, and the journeys in Western Tibet made by the Gartok Expedition, and by Messrs. Sherring, Calvert, and Cassels, have enabled a rough estimate to be formed of the numbers of live-stock in that part of the country. But travellers in other parts of Tibet have not attempted to form any estimate whatever. In the following notes on the subject the question of transport will not be considered, as it will be dealt with fully in the next section.

**Domestic Animals.**

The domestic yak is identical in origin, and bears a close resemblance to, the wild variety. It is, however, somewhat

**The yak.**

smaller and lighter, and is distinguished by a peculiar grunting noise which is quite foreign to the species in its natural state. Its flesh closely resembles beef, but is difficult to obtain, as the



animal is universally used for transport purposes, and the Tibetan will rarely part with it. The flesh is cut into strips, dried, and smoked, and will keep good for an indefinite time in cold climates. The fat is also considered a sustaining and portable comestible. Wellby writes: "The fat of the yak was so precious to us that we used to boil down every ounce of it and put it into our old cocoa tins. These cakes of yak's fat were very much appreciated by all; we used to knock off bits of it, and eat it as though it were Everton toffee." The height of the domestic yak is from 12 to 14½ hands at the shoulder; and its weight is about 700 lbs. Its milk is both palatable and nourishing, and in quantity about equal to that of the ordinary English cow. Butter, however, is obtained in double quantity from a given amount of yak's milk as compared with that derived from an equal measure of cow's milk. The cost of a yak is from 12 to 20 rupees, and of its flesh, from 1 to 6 annas a pound. The animal is to be found in all inhabited districts in considerable numbers; over 2,000 have been enumerated in the Chumbi Valley. (See Transport.)

*Dzo* is the name given to the progeny of a cross between the yak and a

#### The Dzo.

domestic cow, and to all animals which have a strain of the common cow in them.

*Dzo* are extensively used for agricultural purposes at elevations to which the pure yak is unsuited.\* They are generally considered to be more tractable and less subject to disease than the yak proper. They stand from 12 to 13½ hands high, and cost from 10 to 13 rupees a head. Their milk is said to be excellent. Though less numerous than the pure yak, *dzo* are to be found in all inhabited districts. (See Transport.)

The Tibetan pony is a quiet, hardy, and strong little animal, eminently

#### Ponies.

suited to Mounted Infantry work. The usual height is from 11 to 13 hands. Ponies

are bred in Tromo from mares imported from Tibet proper, which vary in price from Rs. 50 to Rs. 250, and a fair is held at Talung, which is attended by dealers from Bhutan.† Numbers of Mongolian ponies are occasionally brought to Lhasa for sale. The Chang Tang produces a pony of a small rough type about 11 hands high, with plenty of bone. They can be bought east of Leh in considerable quantities at an average price of from Rs. 40 to Rs. 45. In the Rudok district a fine type of pony can be bought at prices varying from Rs. 30 to Rs. 100, but mortality among this class of animal is said to be great. The plain west of Noh supports a large number of ponies of a good stamp; Rawling saw 150 grazing there at one time, and considers that the district could supply as many more. Mr. Calvert estimates the total number of ponies in Western Tibet to be about 2,000; 74 were enumerated in the Chumbi valley in 1906. From 10 to 50 ponies should be obtainable in all the larger villages of the Brahmaputra Valley. (See Transport.)

Donkeys are obtainable in Central Tibet in great numbers. Rawling

#### Donkeys.

estimates the total number in Western Tibet to be not more than 150, and

none are said to be available in the Chumbi valley. Good donkeys between six and nine years cost about Rs. 18. (See Transport.)

\* The yak will rarely keep condition at elevations below 12,000 feet in summer. It may be mentioned that Sven Hedin made the ascent of the Mustagh Ata on a yak, and attained an altitude of 20,660 feet.

† In 1906 it was reported by a Chumbi trader that the Bhutanese insist on having first choice of all the mules and ponies brought to Talung for sale; should a Tibetan buy an animal before the Bhutanese have rejected it, he is forced to give it up.



Mules are much valued by the Tibetans, and are consequently difficult to obtain. About two thousand are now

#### Mules.

said to be available in the Chumbi valley, but those met with in the Brahmaputra valley and Western Tibet belong for the most part to caravans trading between Lhasa and Ladakh. These caravans number about 60 mules apiece, and pass through Ladakh chiefly in September, October, and November. Rockhill reports large numbers of mules in Ta-tsien-lu, and on one occasion saw a caravan of as many as 3,000 starting for Tibet. The district of Kongbo is said to support thousands of mules, but no definite information on this point is available. The price of a pack mule is from 125 to 500 rupees, but Bower reports that they can be obtained for 50 or 60 rupees in Litang. (See Transport.)

The Tibetan sheep is rather larger and stronger than the Indian variety, and produces a far finer quality of wool.

#### Sheep.

They are to be found in large quantities all over Tibet wherever grazing exists, but there seems to be no doubt that the number is decreasing. Tibetan sheep are only purchased as live-stock for transport purposes; they cannot survive in the Indian climate of even such districts as Lahul, Kulu, or Bashahr, though they are reported to do well in Sikkim, and those shown in our trade returns are the weak and emaciated creatures which, being unable to withstand the return journey, are sold to be eaten. The flesh, however, is tough and tasteless. Mutton was bought by the Tibet Mission Force at Dochen to the amount of 10,481 lbs. for 8 to 14 lbs. to the rupee. A sheep can be bought in Western Tibet for one rupee. (See Transport.)

The Tibetan goat is chiefly that known as the shawl wool goat. Though

#### Goats.

not so numerous as sheep, large herds are to be found in most districts wherever grazing exists, and, in Western Tibet, can be bought at 12 annas a head. Like the sheep, their flesh is tough and tasteless.

Pigs are found in small numbers and appear to be of the Indian variety;

#### Pigs.

but owing to their remarkably foul habits—(they live at large among the refuse heaps and sewers of the larger towns)—they cannot be considered as an article of commissariat.

Fowls were bought by the commissariat of the Tibet Mission Force at Rs. 1-10-0 each at Chumbi, at 6 annas each

#### Poultry.

at Gyantse, and at Re. 1 each at Lhasa.

The quantity, however, appears to be small.

#### Agricultural stock in Chumbi valley.

The following table shows the agricultural stock available in the Chumbi valley on the 31st March 1906:—

	Mules.	Ponies.	Yaks.	Bullocks.	Asses.	Sheep.	Goats.
Upper Tromo . . . .	288	13	473	205	..	..	..
Lower Tromo . . . .	521	18	1,109	222	..	..	..
Phari . . . . .	5	32	383	178	..	400	20
Chu-Kya . . . . .	1	6	157	79	..	600	43
Kampu* . . . . .	..	5	60	118	..	..	..
Totals . . . . .	815†	74	2,182	802	..	1,000	63

\* No sheep are kept in Kampu valley, as aconite grows very plentifully there.

† The number of mules in the Chumbi valley has increased greatly during the last few years and is now estimated at 2,000. They graze largely in the Kam-pu valley during the rainy season.



## Wild Animals.

Wild animals are found in such enormous quantities in certain parts of Tibet, that they might, if necessity arose, prove a valuable addition to the commissariat of a small force operating in sparsely populated districts. To travellers they are indispensable. Some idea of the numbers in which they are encountered may be gathered from the following quotation from Deasy's account of his journey over the western Chang Tang. "The country was simply alive with antelope," he writes, "and owing to the thousands seen the name 'Antelope Plain' was given to this fairly level ground." Rawling encountered immense herds in another locality; "there could not have been less than 15,000 or 20,000 visible at the same time" he writes. Sandberg gives a list of 146 different species of quadrupeds occurring in Tibet, of which he claims 70 to be peculiar to the country,\* but Blanford is only able to enumerate 46. The following notes refer only to those animals which might be useful from the point of view of Supply.

The wild Yak (*Bos Grunniens*). Nomenclature, Tibetan, *dong*; Mongol, *bukha*; Turki, *kutaz*; Chinese, *changmao niu*; Hindustani, *ban chowr*. Height, 16 to 18 hands. Colour, black. Weight, 1,300 lbs. to 1,500 lbs. Habitat, ubiquitous, but scarce in Central Tibet. Flesh, good, if kept some time. Herds, 15 to 50.

The wild Ass (*Equus Hemionus*). Nomenclature, Tibetan, *Kiang*. Height, about 14 hands. Colour, bright bay and white. Habitat, ubiquitous, and is easily shot. Flesh, coarse, but freely eaten by nomads. Drovers, 20 to 30, but often met with singly, or in twos or threes.

The Tibetan Antelope (*Pantholops Hogsonii*). Nomenclature, Tibetan *Tsot*, *Tsö*, or *Chi-ru*. Colour, reddish grey. Weight (uncleaned), 90 to 120 lbs. Habitat, ubiquitous. Flesh, excellent. Herds, either in small numbers or in thousands.

The Tibetan Gazelle (*Gazella Picticaudata*). Nomenclature, Tibetan, *goa*. Height, 25 inches. Weight (uncleaned), 45 lbs. Colour, grey. Habitat, ubiquitous. Flesh, excellent.

The Nyan (*Ovis Ammon*). Nomenclature, Tibetan, *nyan*. Height, 11 to 12 hands. Weight, 250 lbs. Habitat, ubiquitous, but somewhat scarce. Flesh, good.

The Burhel (*Ovis Nahura*). Nomenclature, Tibetan, *Napo* or *Na-a*. Height, 33 inches. Weight, 130 lbs. Colour, bluish grey. Habitat, ubiquitous. Flesh, excellent.

The Tibetan Hare (*Lepus Tibetanus*). Nomenclature, Tibetan, *Ri-bong* or *chandgga*. Size, about that of a rabbit. Habitat, ubiquitous, and easily shot. Flesh, fair.†

Of birds the Ram chikor and the Tibetan sandgrouse are the most plentiful; while geese, duck, and teal are found on all the fresh water lakes.

Among other wild animals of Tibet may be mentioned the wild camel (north-eastern Tibet and Tsaidam), tiger and leopard (eastern Tibet), four varieties of wolf (all over the country), three varieties of bear (chiefly north-eastern and eastern Tibet), jackal, and numerous varieties of marmot.

\* Sandberg's list comprises all mammalia occurring between Ladakh and the Ssu-chuan frontier and between northern Tsaidam and the Himalaya.

† The Tibetans will rarely eat hares. They assign as a reason that the hare belong to the same family of animals as the domestic ass. Moreover, they give the hare and the ass identical names, the former being called *ri-bong* (or "ass of the mountains") and the latter *bong-gu*.



## TRANSPORT.

The animals used in Tibet for transport purposes are yaks, *dzos*, mules, ponies, donkeys, sheep, and goats. Camels are used in caravans entering Tibet from the north, but are not indigenous to the country; the country is, moreover, entirely unsuited to the Indian variety of camel, and those used in the Tibet Expedition of 1904 all died from lack of proper grazing.

The disadvantages of yak transport are (1) that the yak subsists entirely on grazing; (2) that he has very tender feet; (3) that he is a very slow mover;

**Yak transport.** (4) that he loses condition at low elevations; and (5) his great weight. His advantages are (1) that he can carry great loads; (2) that he is remarkably sure-footed; and (3) that he can work at elevations where other forms of transport would suffer heavy casualties.

Regarding his disadvantages, (1) the fact that he subsists entirely on grazing limits his utility to districts where grass is plentiful and good. He rapidly loses condition as a result of poor grazing, and can rarely be persuaded to touch grain. When stall-fed, yaks are given mustard-grain and coarse ground barley. On the march they require at least six hours a day to pick up food. (2) If worked continuously (especially over stony ground) the hoofs of a yak will soon wear down, and he will rapidly become footsore and lame. On the first symptoms of lameness, they should be given a rest, and they further require one complete day off in every week. Tibetans work them continuously for two or three weeks and then give them a complete rest for a week or ten days. (3) The utmost that a yak can travel is  $2\frac{1}{2}$  miles an hour, and in order to keep him in condition it has been found that he should not be driven for more than 5 or 6 miles and then turned out to graze for the rest of the day. For this reason alone, yak transport is unsuitable for employment with moving troops, except on the rare occasions when time is no object. Tibetans usually march at 4 or 5 A.M., and halt for the day at 9 or 10 A.M. (4) A yak rapidly loses condition and contracts various diseases at elevations below 12,000 feet in summer and 8,000 feet in winter. In view of the severity of the Tibetan climate, operations in the country would naturally be confined to the lowest possible elevations, so this disadvantage must be considered a serious one. (5) Yaks are at their worst in heavy snow or marshy ground, when their great bulk causes them to sink to the belly, in which position they are perfectly helpless. To cross a snow pass with yaks a start should be made during the night, when the snow remains sufficiently frozen to bear their weight. In the event of the snow becoming soft before the pass is reached, the plan adopted by the natives is to relieve one of the largest and heaviest animals of his load, and to send him on ahead to make some sort of beaten track over which the remainder can pass. If the snow is deep, however, there will sometimes be no alternative but to remain camped at the spot, and wait until the night frosts have again hardened the surface of the snow-fields. Regarding the advantages of this form of transport, (1) a yak can carry up to three maunds without showing any signs of distress; (2) he can traverse the most difficult country, even rocks and glaciers, without slipping; and (3) he can work at almost any high altitude, and requires no covering even in the bitterest cold, to which he appears to be quite insensible.

Transport yaks are provided with a rough baggage saddle consisting of a wooden framework secured by ropes on top of a pad of thick blankets or rugs. For riding purposes the yak is useful, being sure-footed and reliable, but he will not travel faster than at a walk. The Tibetan pattern of riding saddle is eminently uncomfortable, having a straight upright pommel, and



ludicrously short stirrup-leathers. Each saddle is, however, generally provided with two capacious saddle-bags in which a variety of things can be stored away. The feeding and tending of yaks should, as far as possible, be left to the natives, who understand their peculiarities; they are suspicious of Europeans, and will snort or stampede if one approaches to handle them. Among the yaks employed with the Tibet Expedition of 1904, there were as many as 98 per cent. casualties. Those supplied by the Nepal Durbar (which were in many cases not of pure breed, and some of them actually in calf) contracted anthrax, rinderpest, and pleuro-pneumonia, and all of them died with the exception of 31, which were issued as rations. The Phari yaks did good work, but owing to lack of grazing in winter, died in large numbers.

Generally speaking, yak transport must be considered unsatisfactory for employment with the advanced portions of a force, though they might reasonably be found most useful on the lines of communications, for the carriage of stores, etc., and then only when time was of no great importance.

Much the same remarks apply to the *Dzo*, from the point of view of transport, as apply to the yak. They subsist chiefly on grazing, but take more readily

#### **Dzo transport.**

to grain where grass is scanty or of poor quality, and can work well at lower altitudes. They cannot, however, carry such heavy loads as the pure yak, though they are equally slow movers; they are said to be quite as sure-footed over rough or slippery ground, and are certainly a good deal more docile and tractable.

Most travellers agree that the Tibetan mule is the best form of transport, for general purposes, that the country possesses. They are said to be exceedingly

#### **Mule transport.**

sure-footed, can keep condition at extreme altitudes, and, if kept unclipped, are impervious to cold. They require to be shod on all four feet if employed on British made *pukka* roads. The usual native food for a mule (or pony) is grass at daybreak; after the sun is up, it is taken to water and there given a mash of one *phu-tag*\* of coarse barley-flour or buck-wheat, and when brought back is given 4 to 5 *phu-tags* of Indian corn. Its evening meal is again 4 to 5 *phu-tags* of Indian corn. The percentage of casualties among the mules from India employed with the Tibet Expedition of 1904 was less than amongst any other form of transport; the casualties were, moreover, due to a great extent to poisoning. It may be presumed, therefore, that the class of animal entertained by the Supply and Transport Corps in India is quite suitable for work in Tibet, and for this reason, a force operating in the country would be better independent of local supply, since mules are hard to obtain and command high prices.

Ponies are a valuable form of transport on account of (1) their great endurance; (2) their rate of marching;

#### **Pony transport.**

(3) their amenability and temperate disposition; and (4) the ease with which they can be driven and looked after. Careful selection is very necessary; Rawling considers the Ladakhi or Chang Tang pony to be the most suitable for general purposes. If bought in the winter or early spring, however, he requires feeding up for a month before being fit for work. He will carry 200 lbs., has great staying powers, and can live comfortably at elevations up to 17,500 feet. The Zaskar pony is probably superior to the Ladakhi for riding purposes, and is almost its equal as a transport animal. The Western Ladakhi pony is a good load-carrier, but

\* One *phu-tag* is one-fifth of a *tre*. One *tre* of barley is the equivalent of 31 lbs. 14 oz., and one *tre* of buck-wheat to 2 lbs. 13 oz.



is liable to lose condition at extreme altitudes. The Yarkandi is said to be the most comfortable as a mount, but is less hardy than the other breeds, and, being finer of coat, needs extra protection in extreme cold. The pack ponies of the Tibet and Kashmir Pony Corps employed with the Tibet Expedition of 1904 turned out to be a very poor class of animal, and died in large numbers from colic and debility. The casualties among the ekka ponies brought from India were remarkably low under the circumstances, and occurred chiefly in winter; during the summer they did some excellent work. The native feed for a pony is the same as that given above for a mule, but grain may be dispensed with in July and August. The Kashmir and Tibetan ponies of the Expedition were allowed 3 lbs. of grain per diem and had to graze for the remaining part of their sustenance, but in view of the scantiness of the grazing, this allowance was found totally inadequate, and large numbers were incapacitated by loss of condition and resultant sore-backs.

Ponies require shoeing on all four feet; they should not be led, but driven in herds. This method of progression enables them to pick up a few mouthfuls of grass as they go along, and has the further advantage that the adjustment of a load does not involve the halting of the entire caravan.

Donkeys, carrying a load of  $1\frac{1}{2}$  maunds and eating 1 lb. of corn a day, can keep up with ponies. They are, however, difficult to obtain in any quantities

**Donkey transport.** except in Central Tibet, and would not ordinarily be used for transport purposes with troops. They are not shod nor blanketed at night.

Sheep and goats are largely used by the Tibetans for transport purposes.

**Sheep and goat transport.** The load varies from 10 to 16 *seers* and is carried in a pair of small bags slung on either side of the back. The total number used in Western Tibet for trade purposes is estimated at 30,000, but as many as 10 to 25 per cent. die on the road every year and have to be replaced.\* They cannot be considered a suitable form of transport for military purposes, but, should flocks of sheep accompany a force as supply, they might be suitably utilised for carrying small quantities of grain or other food-stuffs. It should, however, be remembered that a sheep utilised for transport rapidly loses condition, especially if worked continuously; the loads should, therefore, be light, or the animal will not be fit for eating.

The following table shows the total number of transport animals employed from March 1903 to November 1904 with the Tibet Mission Expedition, together with the casualties which occurred and the percentage of casualties in each class:—

Class.	Number.	Casualties.	Percentage of casualties to number employed.
Pack mules . . . . .	5,526	813	14·7
Ambulance riding mules . . . . .	240	25	10·4
Draught mules . . . . .	1,330	72	5·4
Draught bullocks . . . . .	3,128	536	17·1
Pack bullocks . . . . .	2,108	418	19·8
Camels . . . . .	6	6	100·0
Buffaloes . . . . .	138	137	99·2
Riding ponies . . . . .	185	24	12·9
Pack ponies of Tibet and Kashmir Pony Corps . . . . .	1,372	899	65·5
Nepalese yaks . . . . .	2,953	2,922	98·9
Yaks purchased at Phari, Gyantse, etc., and captured . . . . .	1,513	1,192	78·7
Ekka ponies . . . . .	1,111	277	24·9
Coolies . . . . .	10,091†	88	0·8

\* Captain Biddulpp (in a report on a mission to Yarkand) mentions an instance of flocks of sheep carrying 20-lbs. loads marching 320 miles across the Karakoram in a month.

† Including those entertained to replace desertions, discharges, etc.



The following poisonous plants were responsible for a large number of the casualties:—aconite, rhododendron, *chimal*, and *murkhul*. Aconite is the most readily consumed, and the most difficult

**Poisonous plants.**

to avoid, as it grows in many and convenient places for animals to reach when grazing. Rhododendron is found in variously sized plants and trees, but is not readily consumed by animals if other grazing is available. *Chimal* is exceedingly poisonous; its leaf is similarly shaped to that of the rhododendron, but is easily distinguished by its dusty-red under-surface. *Markhul* is often mistaken for bamboo, and unless grass-cutters are warned, they will often bring it in under the impression that it is bamboo. The differences between the two plants are as follows:—

- (1) The edges of the leaves of the *murkhul* are smooth, while the edges of the bamboo leaves are slightly serrated and rough.
- (2) *Murkhul* has no knots on its stem; the bamboo has knots even on its smallest branches.
- (3) The *Murkhul* has a long green feathery flower; the bamboo has no such flower.

Wellby mentions the existence of some poisonous species of grass on the Northern Chang Tang (where he lost 9 out of his 12 transport animals in one night from this cause), and poisonous plants are known to grow in Eastern Tibet, the Mantzu State of Wassu having a particularly bad reputation in this respect.

In connection with the provision of transport, some mention must be

**System of *Ula*.**

made of the system of *ula* in Tibet. China, in order to maintain her suzerain powers in Tibet, is obliged to keep a large staff of officials in the country, and these, owing to the necessity of maintaining the dignity of their position in the eyes of the Tibetans, and to the exigencies of their mode of life, require not only a large body of retainers and soldiers, but also provisions, ammunition, and the means of transporting money and goods. As the term of service of Chinese officials in the country is only three years it will be readily understood that official travelling expenses would be a most serious item in the public account if the Government were obliged to defray these expenses. Recourse is therefore had to the system of *ula*, by which, in return for a grant of land adjacent to the highways, the native tenants are obliged to provide means of transport from one stage to the other. The tenant is given ample notice of the coming of an official, as well as of the weight of the baggage and goods accompanying him; non-compliance with the order, would have serious consequences. Transport is, in fact, simply commandeered; and, though the system is subject to great abuses, it has its advantages from a military point of view, in that it forms so integral a part of the social life of Tibet that transport should be readily forthcoming in time of war.

**VEHICLES.**

There being practically no roads in Tibet, no vehicles of any description are to be found in the country, except the *ekkas* with the 1904 Expedition. Indian *ekkas* used by the British Trade Agent to Gyantse on postal service, and one motor car lately imported for the use of the Tashi Lama at Shigatse.



In the Tibet Expedition of 1904, *ekkas* were extensively used for the carriage of supplies, and in view of the numerous casualties among the transport animals, it would have been impossible adequately to supply the force without them.\* The *ekkas* were obtained from India and were carried in pieces by coolies through Sikkim and over the Nathu la to Chumbi, where they were put together. The first batch of *ekkas* received were bazaar *tumtums* with springs which broke under weights varying from 4 to 5 *maunds*, and were found unsuitable for work over rough ground. The real *ekkas* without springs were found more serviceable, and those purchased second-hand from the bazaars lasted best. Those made up hastily under contract were found very faulty, owing to inferior material or defective construction.

A small single draught cart, admirably suited to work in Tibet, was made up by Lieutenant Wood, who commanded the 1st Ekka Corps. The Chief Supply and Transport Officer of the force reports on this vehicle as follows:—"A special feature of this cart was that it could be taken to pieces easily and rapidly, and loaded on two mules, for which it formed a very light load, about 250 lbs. Its carrying capacity is 5 *maunds* of the ordinary standard size, such as bags of grain or boxes of ghee, and a light handy vehicle of this sort would have proved of inestimable value to us on this expedition, where we had to lift cumbersome *ekkas* by coolies with immense labour over the high passes to the plateaux beyond, where draught carriage could be used. I recommend this cart most strongly." The same officer has invented a light ambulance cart for single draught, which has been reported on most favourably as a handy and convenient means of transporting sick over rough roads such as are found in Tibet.

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\* Report on the Supply and Transport arrangements with the late Tibet Mission Force, 104.



## CHAPTER V.

### COMMUNICATIONS.

Roads, in the ordinary acceptance of the term, are practically non-existent in Tibet. Certain routes (the majority of which converge on Lhasa) are recognised for purposes of trade, but it is only in the case of the *Janglam*—the great high road connecting Peking with the Tibetan capital, and continuing westward into Ladakh—that any effort has been made to maintain a roadway suitable for commercial traffic. The pressure of outside influence has induced the Tibetans to pay some attention to road construction in the

Road construction in Tibet. southern portion of the country, but the latest reports show that the work has been undertaken in a very half-hearted fashion. In this, as in all other matters in which the progressive interests of the country are concerned, the obstructive policy of the existing system of government can be detected; the Chinese, as long as they can command a profitable trade with this portion of their dominions, are naturally reluctant to facilitate its commercial intercourse with neighbouring territories. Nor are the Tibetans themselves any less apathetic in the matter. From time immemorial it has been their habit to perform their journeys and to drive their caravans over routes which often cannot boast the smallest semblance of a pathway; and so conservative is the Tibetan that he cannot be induced to realise the disadvantages of this means of progression compared with the facilities of well-constructed roads.

There are other considerations, besides the absence of good roads, which affect the movement of troops in Tibet. The geographical conformation of the country renders access to the interior difficult, and limits the regions suitable to the conduct of military operations to a comparatively small area.

It has already been stated in Chapter I that it would be possible to move only small parties of troops over the Chang Tang; and as in all conceivable circumstances, Lhasa would be the ultimate objective of operations in Tibet, the question of communications (as far as routes are concerned) resolves itself into a consideration of the various points at which access to the country may be obtained from the east, south and west, and of the best routes to follow from each of these points in order to reach the Tibetan capital. The northern frontier cannot, however, be altogether disregarded, for though the geographical conformation of the Tibetan plateau itself forbids approach from this direction, it is conceivable that Russia might establish herself on the northern confines of the country and set about improving the existing means of communication to the interior. We know that Russian explorers—Prjevalski, Roborovski, Kozloff, and others—have been busy along the northern frontier for a number of years, and have even penetrated southwards to a point barely 250 miles from the frontier of Assam. These explorations, while merely “nibbling” at the western passes of the Kwen Lun, have undoubtedly resulted in a very thorough geographical survey of the regions about Tsaidan and the Koko Nor. The political importance of these regions—at present considered a sort of waste hinterland to Tibet proper—will be referred to later.



Following the same system that was adopted in Chapter I in describing the frontier, the approaches and passes, together with the inland routes to which they give access, will here be described consecutively, taking as a starting-point the north-west corner of the country and travelling eastward.

Little need be said of the northern frontier. Andijan, the eastern terminus of the Russian Central Asian

**Approaches from the North.** Railway, is separated from Khotan by over 500 miles of mountainous and desert country,—a journey involving the passage of the Alai Mountains and the barren regions bordering the south-west corner of the Takla Makan. The nearest station of the Trans-Siberian Railway to the northern frontier of Tibet is Irkutsk, to the west of Lake Baikal, but, measured in a straight line, the distance from this point to Si-ning in the Chinese province of Kan-su is fully 1,000 miles, and involves the crossing of the Desert of Gobi. The Kwen Lun mountains are in themselves a most formidable barrier against aggression from the north. South of Khotan these mountains measure only some 50 miles in breadth, but eastward they broaden out and form a belt of mountainous country some 200 miles from north to south, and involve the passage of a formidable series of parallel ranges. East of the 92nd meridian this belt of mountains is replaced by the salt wastes of Tsaidam, which the journeys of Prjevalski, Carey, de Lesdain, and others have amply proved to be an impassable obstacle. Between the Sanju Pass on the west (over which runs the ordinary trade route between Chinese Turkistan and Kashmir) and Tsaidam on the east, only one recognised pass exists—the Polu route—giving access to the Tibetan plateau; and even that is quite impracticable from a military point of view.

Polu is a small village lying on the northern slopes of the Kwen Lun, and

#### **The Polu route.**

can be approached either direct from Khotan or by way of Kiria. The track follows the course of the Polu stream up to the At To La, a depression in the crest-line of the Kwen Lun at 16,000 feet. The gorge is narrow and stony; the track, which frequently crosses and recrosses the stream, is often obstructed by boulders; and grass and fuel are scarce. The road ascends 9,000 feet in 28 miles, and Dalgleish describes it as "quite impracticable for baggage animals."\* He and Carey only succeeded in descending it by unloading their ponies and carrying their baggage over the worst parts; Prjevalski attempted the ascent but gave it up as impossible. South of the At To La the barren and waterless plain in which lie the salt lakes of Atchik Kul and Ulagh Kul has to be crossed before the ruined post of Baba Hatum is reached, and thence the Aksai Chin intervenes on the direct road to Ladakh. According to the explorer Nain Singh the Polu road strikes the *Janglam* a few miles east of Noh village, at the eastern extremity of the Panggong Tso, and Bower was informed that it crosses the Aksai Chin by way of Horpa Tso (the Arport Tso of Rawling). There seems no doubt that the route was once a fully recognised one, though Deasy writes that he could find no local corroboration of this, unless the ruined fort of Baba Hatum were some indication of former habitation.

We have Deasy's emphatic assurance that "there is no feasible route be-

#### **The Kara Sai route.**

between Polu and Kara Sai leading in the direction of the Tibetan plateau." Kara Sai is a small shepherd encampment on the northern slopes of the Altyn Tagh, at the foot of the valley in which the Tolan Khoja River has its source. It

\*For an itinerary of Dalgleish's route, see Supplementary Papers of the Royal Geographical Society, Vol. III, Part I.



may be approached either by way of Kiria and Sorgak from Khotan, or from Cherchen by way of Kapa. According to Deasy, who alone has traversed this route, there is abundant grass and water in the lower part of the valley, but in the upper part only a limited supply of *bhoortsa* and no water. At the head of the valley an easy pass (the Atmish La) of 16,500 feet, "which may be considered the natural boundary between Turkistan and the great Tibetan plateau," leads to the salt lake of Shor Kul (where grass is plentiful), and thence, after crossing the five tributary sources of the Kiria River, the route emerges from the mountains north of Baba Hatum, where it strikes the Polu route already described. This means of crossing the Kwen Lun is scarcely less impracticable than the road which climbs the Polu gorge, but it should be noted that it has the advantage of traversing the mountains by means of a latitudinal valley, instead of striking directly across them.\*

Through some ten degrees of longitude east of Kara Sai, there appears to be no recognised route giving access to the Tibetan plateau. The mountains have been pierced at different points by Prjevalski, Sven Hedin, de Rhins and Grenard, the Littledales and Fletcher, Bonvalot and d'Orleans, Carey and Dalgleish; but a detailed description of the routes followed by these explorers would be beyond the scope of a Military Report, inasmuch as none of the routes can ever attain importance from a military point of view. At the best, they merely lead to the Tibetan plateau, and, when once the Arka Tagh has been surmounted, the whole breadth of the Chang Tang intervenes on the road to Lhasa. For the convenience of those who may wish to study the different routes by which the mountains on the northern frontier of Tibet have been traversed, a foot-note has been subjoined containing references which will be found to be fairly comprehensive.†

The existing roads in the Kwen Lun region (as far as they are known) require some mention. A caravan route in fair condition traverses the *sai*, (or transitional region between the mountains and the desert), which lies at the foot of the Altyn Tagh. From Khotan it passes through Kiria to Niya, at which point it bifurcates; the main road continues north-east to Cherchen by way of Kadirsha and Akbai, the southern branch leads south-east and reaches Cherchen by way of Yayek and the gold-diggers' village of Kapa. Between Cherchen and the Lob Nor, there appears to be no regular road, but from the neighbourhood of Abdal two tracks lead to Sachu, one passing north of the Kumtagh Sands, and the other along the foot of the eastern extension of the

\* The formation of the Kwen Lun mountain system should be carefully noted in this connection. Colonel Burrard, writing in "A Sketch of the Geography and Geology of the Himalaya Mountains and Tibet," says "As far as we know, there are in the Kwen Lun no outer and parallel ranges as there are in the Himalaya." The general formation of the system is, however, in a succession of parallel ridges. Sven Hedin, who has traversed these mountains more often than any living European, writes that "in the region in which we were travelling (between 87 and 86 degrees E longitude) the Arka Tagh consisted of a series of parallel ranges, strangely ill-provided with transverse valleys." He expresses a similar opinion regarding the Aiag Kum Kul region. Prjevalski writes, "It should be borne in mind that the central Kwen Lun is always composed of double, and sometimes triple, parallel chains." Compare also Holdich who writes, "The main ranges (of the Kwen Lun) are folded in vast anti-clinals parallel to the edge of Tibet and to each other, ridge upon ridge, like a series of walls."

† "Mongolia, the Tangut Country, and the Solitudes of Northern Tibet," by Lieutenant-Colonel N. Prjevalski. Translated by E. Delmar Morgan.

"De Paris à Tonkin à travers le Tibet inconnu," par G. Bonvalot.

"Mission Scientifique dans la Haute Asie," par F. Grenard.

"Through Asia" (2 Vols.), and "Central Asia and Tibet" (2 Vols.) by Dr. Sven Hedin.

Journal of the Royal Geographical Society, May, 1878; June, 1880; January, 1885; April, 1887; December, 1887; March, 1891; May, 1897; February, 1899; May, 1896; May, 1902; December 1902; and March, 1903.



Altyn Tagh. From Abdal also a road leads southward through the mountains to the Arka Tagh, and thence is said to traverse the Chang Tang to Lhasa. This is probably the road mentioned by Wellby as cutting his west-to-east route south of the Koko Shili range about  $90^{\circ} 30'$  east longitude. Another route passes between the Illyo Chimen and the Akato Tagh to Ghas Nor,\* and thence skirts the western and southern limits of Tsaidam, keeping to the north of the Tolai Ula until it strikes the pilgrim route from the Koko Nor to Lhasa. Ghas Nor is also connected with Sachu by a track which traverses northern Tsaidam. About  $93^{\circ}$  east longitude a road crosses the Arka Tagh (which here is known as the Marco Polo Mountains) from the north, and is probably that which Dalgleish mentions as passing through Bokalik to Kum Kul, and much frequented by the Chantos of southern Turkistan proceeding to and from the gold-fields. Sven Hedin surmises—in view of an *obo* and cairn of stones on the summit of the pass—that this road is a pilgrim highway to Lhasa, but Wellby, whose route crossed the 93rd meridian about thirty miles south of the Marco Polo Mountains, makes no mention of it.

No road which actually crosses the salt wastes of Tsaidam can be considered of any importance from a military point of view. Carey has crossed from the south by way of the Hajjar and Makhai districts, and de Lesdain from the north by way of the Dabasun Nor; neither route was practicable for any but small bodies of men. The route from Sachu, however, which follows the outer folds of the Nan Shan

#### The Sachu-Lhasa route.

Mountains and skirts the eastern border of Tsaidam by way of Sirtin and the Kurlik Nor, eventually linking up with the Koko Nor—Lhasa route, appears to present no very great difficulties. This route was traversed throughout its length by the explorer A. K., and in part by Roborovski, and is fully described in the Route Book. It pierces the Anembar Ula (the western extension of the Humboldt Range) by the Bulgan Kutil Pass, and thence traverses the marshes of the Sirtin Plain to the Tsaidam Ula. Following a broad and fertile valley bounded on the east by the latter range and on the west by the Togotin Ula (the Trsongin Ulan of de Lesdain) and keeping to the west of the Kurlik Nor and Tossun Nor, the road crosses the eastern extremity of the Tsaidam depression and joins the Koko Nor—Lhasa route at the foot of the Burhan Buddha Range.

The pilgrim route from Si-ning and the Koko Nor to Lhasa has existed for centuries, and is annually frequented by thousands of pilgrims at the present

#### The Koko Nor—Lhasa route.

day. Its importance is political and commercial rather than military, for it is a much frequented trade route between China and Lhasa, and moreover forms a connecting link between the two great Buddhist centres of Lhasa and Urga. The Koko Nor region is a comparatively fertile one, and lies half way between Urga and Lhasa, the former of which is already well within the pale of Russian influence.

The road from Si-ning to Lhasa will be found fully described in the Route Book. Over a great part of the way there does not appear to be any well-defined route, but rather several, all more or less parallel and ill-defined. It skirts the northern shore of the Koko Nor by way of Tankar, and crosses the valley of the Bouhain Gol to Doulan-kit. The crest of the Tamartin Ula is crossed through a narrow gorge, and thence the road traverses the eastern

\* The nomenclature of this lake must as yet be considered tentative. Ellsworth Huntington identifies the Khas Nor of the old Chinese maps with the present Kara Koshun, but Sven Hedin differs from this view for reasons fully set forth in his "Scientific Results, 1899-1902." The lake referred to in the text is that to which Prjevalski gave the name Ghas, and which generally appears on English maps in the anglicised form of Lake Gass.



extremity of Tsaidam, which here is a shaking bog covered with a thin saline crust. From Dzun (in Baron Tsaidam) there are two alternative routes. One follows the northern foot of the Tolai Ula as far west as the village of Golmo, where it turns abruptly south by way of the valley of the Naijin Gol. The Naichi valley is then followed as far as the village of that name (which provides excellent grazing), when the road again turns south and surmounts two precipitous ridges by the passes of Naichi and Angir Takchia. After fording the Chu Mar, the northernmost tributary of the Yangtse Kiang, the road onward is a tedious process of ascent and descent over approximately parallel ranges, none of which present any serious difficulty until the Tangla range is reached. This is surmounted by a pass at an altitude of 16,380 feet, which is often obstructed by snow, and several other passes exceeding 16,000 feet are encountered in the inhabited region between the Tangla and Lhasa. The alternative route from Dzun strikes across the Tolai Ula, the Shuga Ula, and the Baian Kara Ula to Rab Dun, where it crosses the Di Chu by means of a ferry, and meets the other road at Giaro. The total distance from Lhasa to Si-ning is about 900 miles, and though the route is fairly well provided with water and pasture, it is scarcely practicable for military purposes in view of the geographical conformation of the country traversed.

In the east the only important entrance to Tibet is that at Ta-tsien-lu through which town passes the great highroad, known as the *Janglam*, which connects the capitals of China and Tibet.

The Ta-tsien-lu to Lhasa road.  
(The *Janglam*.)

The road derives its importance chiefly from its commercial utility, since it gives access to a portion of Tibet which is by far the richest in cultivation, the best in climate, and probably the most productive in mineral wealth, as well as being the medium of practically the whole of the Sino-Tibetan trade; but it cannot be disregarded as a great military highway as well. It was by this route that the conquest of Tibet was effected by the Chinese, and subsequent expeditions from the east have amply illustrated its military importance. In the eighteenth century, when the Gurkhas from Nepal crossed the Tibetan border and looted the Monastery of Tashilhunpo, a Chinese army of 70,000 men, under General Sand Fo, moving in two columns, advanced by this route to the assistance of the Tibetans, traversing the whole breadth of Eastern Tibet to the interior of Nepal.\*

From the east Ta-tsien-lu is approached through a mountainous but fertile region by tracks which follow the upper affluents of the Yangtse Kiang in Ssu-Chuan. Ta-tsien-lu itself lies in a narrow valley on the banks of the Dar Chu, a tributary of the Tung Ho. The Tung Ho is a tributary of the Min River which drains a populous region of Ssu-Chuan and empties itself into the Yangtse Kiang at Su-Chow. West of Ta-tsien-lu, the Tibetan road has only proceeded a few miles before it bifurcates; a northern route, by way of Kanze to Jyekundo (said to be much easier and to pass through more fertile country) branches off to the north-west, and the main road proceeds westward to the Tibetan frontier *via* Litang and Batang. The first obstacle encountered on this latter route is the double pass of Ka-ji La (13,958 and 14,279); a few miles further west the Yalung River is crossed by boat or hide coracle. Three boats, manned by ten men, are said to be available, and are swung across the river to the village of Ho-kou on the opposite bank. Continuing westward, the road (which is here said to be a great improvement on

\* *Vide* Chapter VII.



the route further east) crosses the Rama La (14,948) and the Do-ze La (15,041)—both easy ascents—to Po-lang-kung, the headquarters of a Chinese frontier military official. After crossing the Ho-chu stream by a two-arched wooden bridge with stout stone piers, a gradual ascent leads to the summit of the Hsieh-Gi La (14,165), below which lies the plain of Litang, uncultivated and forming an excellent grazing ground. Beyond Litang, the Li Chu, a swiftly flowing stream of a remarkably yellow colour, is crossed by a four-arched bridge with a plank roadway laid on piers of loose stones encased in timber, and thence the road takes a generally south-west direction, an easy gradient leading up to the Ra-ka La (15,429). This section of the road is not used for purposes of commerce; the trade between Litang and Batang is conducted by a track which passes through the village of Mai-ya-kou and joins the high road at Ta-so, the diversion from the main road being accounted for by the prevalence of brigandage along the southern route. At the Rung-se La the road curves towards the north-west, and, passing through the villages of Ta-so and Pang-chai-mu, enters the plain of Batang.\* The road then descends to the valley of the Yangtse Kiang, which can be crossed at two points. At Niu-Ku the river contracts to 250 feet and can be crossed by means of a ferry, but though the distance to Chiamdo is only twelve days' journey by this route as compared with seventeen by the ferry lower down the river, the road is a difficult one and is but rarely frequented. The ordinary route follows the left bank of the Yangtse as far as the village of Chu-pa-ling, where the passage of the river is effected in a boat measuring 9 by 60 feet. From the right bank the road continues for some miles in a southerly direction, turning north-west at the village of Rang-mu-tang and climbing to the crest-line of the Ning-Ching Shan—the ridge which constitutes the boundary between China and Tibet.

From this point onwards, the road will be found fully described in the Route Book. Passing through Gartok (in Mar-kham), it proceeds northward to Chiamdo, at which town it crosses the Mekong River. Thence it passes through Lagang to Lho Jong, a large town and the residence of two Chinese officials. From Lho Jong the distance to Lhasa is 395 miles; the road, which is generally wide and level, proceeds by way of Shobado, Pemba, Alado, Lharugo, Donthog, and Nimaring. The total distance from Lhasa to Ta-tsien-lu is about 1,000 miles, and throughout its length the road is provided with *giachugs* (or rest-houses for officials) at frequent intervals. It is traversable all the year round by mounted men, and may be reckoned one of the most remarkable highways in the world.

Apparently China is not satisfied with the present route. From information received in 1907 from Lhasa, it is

**Proposed new route between Tibet and China.**

understood that the Amban intends to open a new trade route towards China by way of Po-yul. No definite information on this point is yet available, but it is said that the road will pass "by way of Kham-do-med to Sanga-Chojong and by Po-thang to Cyando:" and that a saving of fifteen days will be effected.

The northern route into Tibet from Ta-tsien-lu, which branches off at the Cho To Shan, is somewhat shorter than the *Janglam*, and for the reasons already stated, is generally used for purposes of trade. After leaving the main road outside Ta-tsien-lu, it goes north and west to Tai-ling, Dawo, Chango (not Dango, as is usually represented on maps), Chuwo, Kanze and Derge to

\*A new road with rest-houses every 40 li is now under construction between Batang and Ta-tsien-lu. Batang is  $3\frac{1}{2}$  days' journey to the east of the Tibetan border.



Jyekundo. From Derge a branch road leads to the official route at Chiamdo.

The next important entrance to Tibet is by way of Batang, Da-yul and Za-yul, but its importance is as yet purely speculative, for the hostility of the tribes inhabiting the south-east corner of Tibet is at present an insuperable obstacle to free intercourse along this route. From the Chinese province of Yun-nan, access to the south-east corner of Tibet is obtained by way of Atuntse and Menkong, but the rivers are here so closely set together and the intervening mountains so precipitous that the route is but little used and is quite impracticable for military purposes.

Turning to the south-east corner of the Tibetan frontier, we now arrive at

**The Lohit Brahmaputra valley route.**

British territory, and the first route to be considered is that which enters Za-yul from the Brahmaputra valley in Assam.

The existence of a route into Tibet from this direction has been known to the British Government ever since the occupation of Assam, but, owing to the hostile attitude of the tribes on the north-east frontier, it has never yet been properly exploited. Wilcox in 1826, Griffith in 1836, Rowlatt in 1844, Krick in 1851, Cooper in 1870, and Needham in 1886 have all penetrated a considerable distance east from Sadiya; the last-named succeeded in reaching the village of Rima in Za-yul.\* The route followed by Needham traversed the north, or right, bank of the Lohit Brahmaputra throughout; a track on the opposite bank exists, and is frequented by the Mishmis in their communications with British territory, but it is said to compare unfavourably with that on the north of the river. The length of Needham's route, which keeps close to the river the whole way, is calculated to be 187 miles from Sadiya to Rima, and a general idea of it may be obtained by dividing it into five sections, according to the characteristics of the country traversed. The first section is one of 46 miles, extending from Sadiya to the mouth of the Tame River. This part of the road lies entirely in the plains; the only difficulty encountered is the crossing of numerous small streams which enter the Brahmaputra from the north. At times the route follows the rocky bed of the river, at others it traverses the dense jungle on the bank. A good cold weather road could be cut the whole way to Tamemukh (at the mouth of the Tame) without much difficulty; the river itself is also navigable for country boats as far as Dora. The second section is one of 24 miles from Tamemukh to a Mishmi village lying beyond the Tedeng affluent, and contains the only mountain climbing in the whole route to Rima, though the greatest elevation reached is only 4,500 feet. The path, though rough and stony, is generally quite practicable. The third section comprises the country between the village mentioned above and the Dalei River, the largest tributary received by the Brahmaputra east of the Digaru. This portion of the road (a distance of 29 miles) is a series of ascents and descents over small ridges, but is nowhere impracticable. The fourth section comprises the country between the Dalei and the Za-yul frontier. The Du, Tini, Oi, Halong, Halai, Namti, Sa, Chua, Chura, Kamti, Chungti, Sati, and Sikki affluents are crossed in this section. The road is generally uneven and difficult, either traversing steep, stony undulations, or passing under over-arching jungle, where progress can only be made in a stooping posture. The length of the last section of the route—from the Za-yul frontier to Rima—is 26 miles. Here there are no physical difficulties to encounter, the path being generally good, though steep and slippery in places.

\* A journey up the Lohit Brahmaputra as far as the Tibetan border at Sati was made in 1908 by Mr. N. Williamson, Assistant Political Officer at Sadiya.



The importance of this route cannot be overestimated. With the help of a fair bridle path, the journey from Sadiya to Rima could be easily accomplished in twelve days to a fortnight; from Rima to the Ata Gang La (at the head of the Rong Thod Chu tributary) is fifteen days' journey. If the alternative route out of the Za-yul valley is preferred, the Ti La pass at the head of the Za-yul Chu can be reached in six days. On the other hand, the journey to Eastern Tibet by way of Gyantse, Chetang and Kongbo could not well be done in under two months. The Lohit Brahmaputra valley route has thus a great advantage in shortness as a means of communication between British India and Eastern Tibet. The first step towards improving this route would be the construction of a good track for pack animals from Sonpura as far as the Dalei or the Chu, from either of which rivers there are routes into Tibetan territory. In all this distance there is only one considerable range of hills to cross, *viz.*, that which intervenes between the Tame and the Tedeng; for the rest of the way a level track could be laid without difficulty. Opposition from the local Mishmi chiefs is to be expected, but, in the event of military operations along this route, the obstruction of these tribes could not form any serious obstacle to advance.

The route to Lhasa by way of the Dihang valley has been briefly referred

**The Tsang-po valley route to Lhasa.**

to in a previous chapter. It appears to be the only *natural* avenue of approach from British India to the Tibetan capital.

It has never yet been traversed throughout its length, so it is impossible to give a detailed description of it, or to speak with any certainty in regard to its possibilities. It is probable, however, that the distance between Sadiya and Lhasa by way of the Tsang-po valley cannot be much more than 500 miles, and this distance would be greatly reduced if a feasible route could be discovered across the unexplored region that lies between Dangan and Kangker Jong. Measured in a straight line, the distance from Sadiya to Lhasa is only 35 miles greater than the distance from Siliguri to Lhasa, and the opening up of a cross-country route from Dangan to Kongker (thus avoiding the big loop of the Tsang-po) would probably bring Sadiya within easier reach of the Tibetan capital than is Siliguri by way of Sikkim. The conformation of the country in the Tsang-po loop would appear to favour the proposal; the valley of the Lo Chu tributary on the one side and the Kim Jong valley on the other seem to present natural lines of approach. A formidable divide, whose height has not yet been determined, intervenes between the sources of these two streams, and the passage of this obstacle may possibly render the route impracticable. But even granting that this divide is impassable by troops, the entire length of the Tsang-po valley remains the easiest avenue of approach to Lhasa, and it moreover possesses this advantage over any other route which crosses the backbone of the Himalaya, *viz.*, that it is open all the year round. A force operating from India by way of Sikkim or by any of the routes further west, can never winter in the country without accepting the risk of being cut off from its base of supply,—a possibility which would entail the establishment of large magazines of stores, clothing, etc., north of the Himalayan passes. The utilisation of the Tsang-po valley route, on the other hand, would obviate these difficulties, and communication between a force operating by way of Chetang and its base in Assam could be maintained throughout the winter. At present this route is closed on account of the hostile attitude of the Abor tribesmen, and until our relations with these people are placed on a more satisfactory footing, we shall have to be content with more difficult roads.



Another route which seems capable of great development is that from

**The Odalguri route.**

Odalguri to Lhasa by way of Chetang. The actual road covers 309 miles, and comprises 36 marches: it is described as passable for laden ponies throughout, with the exception of a few places where it is necessary to shift loads. Odalguri is situated 26 miles from Nangaldi, whence Gauhati can be reached by river in  $1\frac{1}{2}$  days. The route traverses a rich and fertile country, and taps the important district of Kongbo which is said to support large quantities of mules. Certain formidable passes are encountered between Tawang and Chetang which render the road liable to obstruction during the winter months. Among the more important places passed between Odalguri and Lhasa may be mentioned Taklung (the residence of two Tibetan officials), Dhirang (a Tibetan military post), Tawang and Tsö-na (important commercial marts), Serasa (noted for its hot springs), Chukya (monastery and Jong), Chetang (a large town of 500 houses and two monasteries), and Samye (famous for its monastery).

The following is an extract from a letter from the Chief Commissioner of Assam to the Government of India regarding the Odalguri route:—

“The route (between Tawang and Odalguri) crosses a pass of over 12,000 feet, but for the latter half of its length, it lies along the river valleys, and, depending for its existence upon very numerous bridges, it is closed altogether during the rainy season. It would appear that if summer communication between the plains and Tawang could be secured by the construction of a road above the flood level, this route might prove to be the easiest, as it certainly is the shortest, between the plains of India and the heart of Tibet. The distance, between Tawang and Odalguri (97 miles) is not sufficiently great to render it very difficult to occupy it with a military force, and, if the advance were made slowly, and, *pari passu*, with the construction of a road, it would seem that a small force would suffice for the purpose.”

The routes into Tibet by way of Sikkim are so fully treated in the Route

**Routes in Sikkim.**

Book that only a brief reference to them is necessary here. The main route from Siliguri (the junction of the Eastern Bengal State and Darjeeling-Himalayan Railways) to Lhasa will first be considered.

From Siliguri to the Teesta Suspension Bridge is a distance of 31 miles ;

the road is 12 to 15 feet broad, and  
 Siliguri to Lhasa *via* the Jelap La.      metalled for 10 feet. Crossing the  
 bridge the route takes a generally easterly direction to Kalimpong, which can be reached by a metalled cart road in 10 miles or by a bridle path in  $5\frac{1}{2}$ . The bridle path (which has an average gradient of 1 in 7) meets the cart road two miles from Kalimpong, from which point the road is practically level. From Kalimpong to Pedong is 12 miles, the road throughout being a broad bridle path of 12 feet, along the first half of which carts can travel. From Pedong a steep winding descent, with an average gradient of 1 in 8, leads to the Rishi Chu, and thence the road ascends to Rhenock Bazar where it is joined by a road from Gangtok. From Rhenock an 8-foot path crosses a ridge and descends to the Rongli Chu, whose valley is noted for its unhealthiness during the summer months. Following the right bank of the stream and occasionally rising to circumvent precipitous places, the road passes through



Lingtam (where the ascent of Lingtu is begun) and Phadenchen to Sedonchen, a scattered collection of some 30 bamboo huts. At Garnei, a single stone hut, a road round Lingtu turns off to the left, thus avoiding several hundred feet of climb over the summit of the hill, and rejoins the old track about a mile further on; it is not, however, passable during the winter months owing to the heavy snow which lies on it, and the old track over the summit (12,610 feet) must be taken. From Lingtu to Gnatong, the road is over undulating hillside, with numerous easy ascents and descents of from 200 to 400 feet. From Gnatong the ascent of the Toku La (13,550 feet) is made by a gradient of 1 in 6, whence the road crosses the Jelap stream by a log foot-bridge and follows the right bank. The ascent of the Jelap La (14,780 feet) is fairly easy, but the path on the Tibetan side is rough and stony beyond description, and descends rapidly to the left bank of the Langrang valley. Leaving the stream the path drops down a steep spur to Yatung. The distance from the summit of the Jelap La to Yatung is 7 miles and the road is regularly traversed by laden mules, but the gradients are sometimes as much as 1 in 4, and the surface boggy and strewn with boulders. A hundred yards beyond Yatung, the Nathu stream is crossed by a strong wooden bridge, and thence the road reaches Chumbi by way of Rinchen-gong and Phema.

Before proceeding further an alternative route from the Teesta bridge to Chumbi may be mentioned. After crossing the bridge the road follows the left bank of the Teesta to Rungpo, crossing the Rungpo Chu by an iron suspension bridge, 246 feet long, with an 8-foot roadway, and capable of bearing wheeled traffic. Continuing along the left bank of the Teesta, the road crosses the Rongni Chu by a strong wooden bridge at Singtam, where it turns off to the right and ascends the right bank of the stream by easy gradients. Recrossing the Rongni Chu at 10 miles from Singtam, the ascent to Gangtok is begun; a good bridle path is available which cuts short the distance by 3 miles. Gangtok is situated on a long spur running almost due north and south, on the east slope of which the cart road is continued for a further 5 miles. Thence a good bridle path, 8 feet wide, leads by way of the Roro Chu valley to the Lagyap La (10,700 feet) which gives access to the valley of the Yalu Chu. For about 2 miles the road is practically level, and then, crossing the Yalu Chu, it ascends by way of the Tanye Chu to the Tanye Tso, a small lake lying at an elevation of 12,900 feet. The path rounds the head of the lake, and crosses a spur to the south, thence winding along the southern slopes of the Sibu La range to Se-ra-tang at the foot of the Nathu La, the boundary between Sikkim and Tibet. The road winds in long zig-zags to the summit of the pass, which lies at 14,200 feet above sea-level, descending the northern face by easy gradients to Champithang, and thence *via* Kar-gyi and Phema to Chumbi.

The Jelap route is 6 miles shorter than that over the Nathu La, but the Jelap La is 340 feet higher, and exceedingly difficult of access from the Tibetan side. Brigadier-General J. R. L. MacDonald has estimated the daily carrying capacity of the two routes as:—

1,660 maunds with 8,740 mules by the Nathu La.

1,000 maunds with 10,600 mules by the Jelap La.

"Should the 6 miles of unfinished road on the Nathu La route be completed," he writes in 1906, "its capacity would be increased to 2,160 maunds a day."



I enquired into the report that emanated from the postal runners last winter that the Nathu La route had become unsafe, and find that this report is not due to the state of the road itself, but to the danger of snow. The danger of avalanches exists on both the Nathu La and the Jelap La routes during spring, but in this respect the Jelap La is safer, having only about 4 miles subject to this danger as against 8 on the Nathu La. But in military operations the danger of avalanches, at no times great, can be neglected; the capacity of the road is the main consideration . . . . I may mention that owing to the steep alignment of the Jelap La route,  $\frac{1}{3}$  to  $\frac{1}{2}$  in places, it is difficult to improve it without costly realignment over a considerable length. On the other hand, the Nathu La route being well aligned, any money spent on it improves it."\*

Continuing beyond Chumbi the road follows the left bank of the Am-mo

**From Chumbi to Lhasa.**

Chu, passing the remnants of a Chinese defence wall at Chö-ten Kar-po, crosses to the right bank at Ling-ma-tang, (11½ miles from Chumbi), recrosses a little higher up, and again to the right bank at Gau-tsa. The limit of fuel is reached at the foot of the ascent to Dota. The Dota plain stretches for about a mile, and thence the road ascends to 200 feet above the river, continuing level for two miles to Kamparab, where it crosses to the left bank. It is 7 miles from Kamparab to Phari, where there is good grazing in summer. From Phari to the Tang La (15,200 feet) is 9 miles across a wide, open plain. The Tang La itself, which lies 2 miles east of Chumalhari, is a broad swell, and the summit is scarcely distinguishable from the plains around Tuna which slope gently down to that village. Leaving Tuna, the road follows a ridge of hills to the west, and, passing through Guru (where the encounter of March 1904 took place) and Dochen, leaves the Bam Tso to the east. It crosses the stream which connects the Bam Tso with the Kala Tso by a stone causeway capable of bearing laden animals and wheeled traffic, and follows the right bank. The east side of the Kala Tso plain—about 5 miles broad—is traversed, and thence the road reaches Kangmar. Between Chumbi and Gyantse, rest-houses with accommodation for three persons have been erected at Chumbi, Gau-tsa, Phari, Tuna, Dochen, Kala, Sa-ma-da, Kangmar, Sa-u-gang and Gyantse. From Kangmar the road to Gyantse and Shigatse by way of the Nyang Chu valley branches off to the left, but an alternative road to Lhasa proceeds north-east towards the Yamdrok Tso. At Gobshi this alternative road merges into the Gyantse-Lhasa road, and then proceeds through Shelot to Ralung, following the right bank of the Ralung Chu. The Karo La (16,600 feet) is crossed between Ralung and Zaza; both ascent and descent are gradual. The Yamdrok Tso is reached at Nagartse and thence the road follows the western and northern shores of the lake to the Kamba La (14,950 feet). The pass is crossed after a fairly easy ascent of  $\frac{3}{4}$  mile, a winding descent of 5 miles leading to the village of Kamba Barji on the right bank of the Tsang-po, and 10 miles further, to Chaksam Chori. At this point there is a ferry, as well as the ruins of an old iron suspension bridge. The latter is about 150 yards in length and 15 feet above flood level and stretches between two tall masonry piers. The northern pier stands on a large mound on a small island in the middle of the river, and the other stands on the rocky southern shore below the monastery. The two double chain cables, made of 1 inch iron links a

\* Owing to expense, it was decided in 1907 not to finish the road across the Nathu La, and the Jelap La route remains the postal and telegraph as well as the commercial route between India and Gyantse.



foot long, are fastened at each end to great beams built into the iron piers and into the rocks beyond them. The cables suspended between them and the footway of planks that they used to support have now been removed, and the ferry is the only means of crossing the river. The boats are huge barges made of walnut planks, flat-bottomed and square-cornered, and on each journey can carry about 20 ponies, as well as a dozen men and about a ton of baggage. In 1904, by means of a system of hawsers, each boat did about 30 trips a day, but the native method of crossing the stream is a long and tedious process. After crossing the Tsang-po, the road takes the left bank for a short distance, and then follows the right bank of the Kyi Chu to Lhasa *viâ* Chushul, Junglot, Nathang, and Trilung.

There are other routes into Tibet by way of Sikkim than those which cross the Nathu La and the Jelap La; these

**Other routes from Sikkim.**

can most conveniently be considered

by enumerating the different passes to which they give access. Dealt with from east to west they are as follows:—

- |                      |                           |
|----------------------|---------------------------|
| (1) The Doka La.     | (7) The Pato La.          |
| (2) The Nadonten La. | (8) The Ghora La.         |
| (3) The Donchuk La.  | (9) The Bam Tso La.       |
| (4) The Yak La.      | (10) The Kongra La.       |
| (5) The Cho La.      | (11) The Naku La.         |
| (6) The Thanka La.   | (12) The Choten-nimal La. |

(1) and (2) are of practically no military value.

(3) connects Gnatong and the Chumbi valley, but is of little military importance as the road strikes the Chumbi valley too far south.

(4) and (5) connect Gangtok with Chumbi, but are unimportant in view of the vicinity of the easier Nathu La route.

(6), (7), and (8) connect Lachung village in Sikkim with the Chumbi valley. Lachung is approached by way of Gangtok and Chungtang.

(9) gives access to Gyantse and Lhasa. It is approached by way of Gangtok, Chungtang, Momay Samdong and the Donkhya La (18,131 feet).

(10) gives access to Khamba Jong by way of Giri, and is approached from the south *viâ* Gangtok and the valleys of the Teesta and Lachen rivers. The pass itself (17,250 feet) is  $1\frac{1}{2}$  miles wide and connected with the Sibubu La at the northern or Tibetan end by a level plain  $3\frac{1}{2}$  miles long and from  $1\frac{1}{2}$  to 3 miles wide, with easy hills to the east and west. The actual watershed between Sikkim and Tibet is three miles north of the Kongra La. The country is so open north of Giaogong that pack animals can move almost anywhere, and the regular track need not necessarily be followed; a cart road from Giaogong to the Kongra La could be constructed with little difficulty. The Kongra La is open all through the year, but is difficult in winter.

**Lateral Communications from Khamba Jong.** The lateral communications between Khamba Jong and the Phari-Gyantse road may here be conveniently mentioned—

(a) Up the Khamba *nala* past Ta-tsang Gompa and across the Lompo La to Kala Tso.

(b) Skirt the southern slopes of the range which bounds the Khamba *nala* on the south in a south-easterly direction, and then turn eastwards by the main Phari-Shigatse road to join the Phari-Gyantse road near the Bam Tso.



- (c) Follow the road southwards across the Sikkim frontier, to near Giongong; thence due east to the Tso Lhamo, over the Kangchung La, and join route (b) by way of the Changri Chu valley.

Khamba Jong is also in communication with Shigatse by the Rhe Chu valley, and thence with Lhasa by either the Gyantse or Tsang-po valley route.

(11) gives access to the valley of the Aru Chu *via* Tanglung and Shobrang. It is approached from the south by way of Gangtok, Zemu-Samdong, and Tangu. The ascent to the pass consists of a steep stone slope, which could only be climbed by laden animals with difficulty, and which could easily be defended from above. On the top of the pass is a small triangular lake; the country beyond consists of an undulating grassy plain falling gently for 3 or 4 miles from the water-shed.

(12) gives access to the valley of the Yara Chu and to Tinki Jong. The pass on the northern side is exceedingly difficult, and the onward route encounters many obstacles. In its present condition the road is useless for military purposes.

The question of constructing a road into Tibet from Phari down the Chumbi valley to Richengong and thence to the plains of India by way of the valleys of the Am-mo Chu and Di Chu, running through an outlying corner of Bhutan and terminating at the Nagrakata station on the Bengal-Duars Railway, was for some time under the consideration of the Government of India, but the project has been indefinitely postponed in view of the heavy estimated expenditure.

Of the routes between Bhutan and Tibet, that from Paro to Phari, *via* Sana, Ghassa and the Pempa La (15,481 feet) is the most important. A road used for trade purposes between Ha and Upper Tromo crosses the Bhutan frontier by the Miru La and joins the Chumbi-Phari road at Ribunkha. A third route, used for trade between Bhutan and Lower Tromo, follows the course of the Am-mo Chu into the Chumbi valley.

The following notes regarding the passes giving entrance to Tibet from Nepal have been extracted from the Report on Nepal, 1893.

#### Routes from Nepal into Tibet.

The Nepal Himalaya can be traversed by several passes leading into Tibet, but these, from their great elevation of over 15,000 feet, are only open during the warmer months of the year. The most important are :—

The Taklakhar, or Yari, Pass.		The Kuti Pass.
The Mastang Pass.		The Pangula Pass.
The Kiron Pass.		The Hatia Pass.

The Wallong, or Wallongchong, Pass.

The Taklakhar, or Yari, Pass is midway between Nanda Devi and Dewal-giri. It is at this point that the Karnali river quits Tibetan territory and enters western Nepal. The village Tak, from which the pass takes its name, is situated at its southern, or Nepalese, entrance. Colonel Warren, who was consulted by Jung Bahadur as to the defence of Nepal against Tibetan attacks and to whom that statesman unreservedly gave all information regarding the northern passes, writes in 1891 :—"Taklahar is a large, wide valley, rich and well cultivated, about 25 miles in length and from 3 to 8 miles in breadth; it is guarded by five strongly built forts..... situated on heights above the surrounding plain. They could easily be breached by rifled mountain guns. Taklakhar valley juts deeply into the northern boundary, and is a point of



the highest importance in any operation on this frontier." Water is plentiful in the valley.

The Mustang Pass runs round the eastern slopes of Dewalgiri and by the bed of the Narayani to Tradom in Tibet, where it strikes the trade route between Ladakh and Lhasa. On the north side of the pass is the large village of Muktinath, much visited by pilgrims and salt traders. Mustang, or Loh Mustang, is the chief place of the district of that name. A few miles beyond Mustang the Photu La is passed, forming the boundary between Tibet and Nepal.

The Kiring Pass follows the course of the Trisulganga and crosses the Tibetan frontier at Raswagarhi, the pass itself being beyond the Nepalese border. It is passable by ponies, for which reason the Nepalese embassy, sent periodically to Peking by way of Tibet, returns by this route. The road is comparatively good, but the explorer M. H. mentions a portion of it beyond Raswagarhi where a gallery of loose planks is laid on iron bolts driven into the precipitous rock in the gorge of the river. The Chinese army of invasion, already referred to in connection with the Ta-tsien-lu to Lhasa road, entered Nepal by this route.

The Kuti Pass, to the east of Gosainthan, is the high-road between Katmandu and Lhasa, but it is impassable by ponies. The route strikes the Bhotia river, (one of the seven Kosis), near the Tibetan frontier, and then follows its course to the Thung La. Colonel Warren says of the Kuti Pass that it is an exceedingly difficult and dangerous one, but that it is only closed by snow for a short time each year. On the Tibetan side the pass is very steep, steps having been cut in the rock to make it passable. It was here that a Nepalese army of 5 battalions was defeated by the Tibetans in 1855 with a loss of 24 guns.

The Pangla Pass is on the road which follows the course of the Dud Kosi, and crosses to Dingri, and thence to Lhatse Jong. The pass is about 23 miles west of Mount Everest, and was crossed by the explorer M. H., who describes it as very difficult and dangerous, and estimates its height to be 20,000 feet. The Nepalese embassy to Peking generally proceeds by this route.

The Hatia Pass follows the course of the Arun river into Tibet; it has not been explored, and nothing authentic is known of it.

The Wallongchong Pass is situated in the eastern extremity of the Nepalese Himalaya, a little to the west of Kinchenjunga. The roads through these passes, as well as all roads leading to them through Nepalese territory, are so bad that loads of every description have to be manhandled or carried on sheep or yaks. When once the Himalaya is passed the routes to Lhasa and other parts of Tibet are practicable for all beasts of burden. For approaches to the passes through Nepalese territory, see Report on Nepal.

We now come to the passes into Tibet from the United Provinces. Of these there are twelve or thirteen, but some are of very slight importance. From east to west, the names of these passes are as follows:—

The Lippu Lek (16,730 feet).

The Mangshang (about 18,000 feet).

The Lanpiya Lek (18,150 feet).

The Dharma Passes (over 18,900 feet). (a) The Kachh Lek.

(b) The Neo Lek.



- The Untadhura (17,390 feet). (a) The Shel-shel (16,200 feet).  
 (b) The Balchha (17,500 feet).  
 (c) The Kingri-bingri (18,300 feet).

The Chorhoti (18,300 feet).  
 The Marchauk (19,300 feet).  
 The Silikank (18,000 feet).  
 The Niti (16,623 feet).  
 The Mana (17,890 feet).

Of these only the Lippu Lek, the Untadhura, the Niti, and the Mana merit any close attention, the remainder being of practically no importance.

The Lippu Lek is the easiest of all the Kumaon passes. It lies on the confines of Kumaon, Nepal, and Tibet, at the sources of the Yarka river, which becomes

**The Lippu Lek Pass.** the Kali some few miles below the pass. The ordinary route to the pass is by Pithoragarh, Askot, Darchula, and Kalapani. Pithoragarh can be reached either by way of Almora, or (from the plains) *via* Tanakpur (40 miles from the railway at Pilibhit), Champhawat, and Lohaghat. Pithoragarh is an important village, lying in a fertile, grain-producing valley, 55 miles from Almora and 24 from Askot. Between Askot and Garbiang is the famous Nirpani cliff; although the path which traverses it has been improved of recent years, it is still a serious obstacle, and in some places so bad that no laden pony is allowed to cross it unaided. After Garbiang the road presents no further difficulties; the pass is within our frontier, and is so easy that for the last 20 miles on our side and over the descent on the Tibetan side a cart road could be made without difficulty. The road is open all the year round, though difficult in winter; and, of all the Kumaon passes, it is best adapted for offensive military purposes. It gives direct access to the Tibetan plateau, which is here level and open; the pass overlooks the Manasarowar Lakes, where the route meets the high-road to Lhasa. From the Lippu Lek, Gartok is reached by the following marches—Taklakot, Kartum, Lang-Nga-Drungang (on Rakhas Tal), Barka, Shala Dza Gung, Trok Pu Shar, Misar, Gya La Bum, and Nargyn.

The Untadhura differs from the Mana and Niti passes in that it is really an inter-Himalayan pass, and not a single

**The Untadhura Passes.** defile which debouches on to the Tibetan plateau; it is rather the first of a series of passes which have to be crossed ere Tibetan territory is reached. A route does exist by which Tibet may be entered without traversing any subsidiary pass, but the track involves the crossing of a formidable glacier with deep crevasses, which is impracticable for any but small parties. The next shortest route into Tibet by the Untadhura is over the Kingri-bingri pass, which leads to the trading centre of Gyanema; but the path is a very difficult one. Another route from the Untadhura to Gyanema is *via* the Balchha Pass. The shortest route to Gartok is by way of the Shel-shel pass, which is easy, and only 16,200 feet above sea-level.

The usual way of reaching the Untadhura pass is by way of Kathgodam (the terminus of the Rohilkund and Kumaon Railway), Almora, Tejam, Mansiana, and Milam. Milam is the last real village before reaching the pass. It is about 13 miles south of the pass and situated near the junction of the Gori and Gunka rivers, at an elevation of 11,430 feet. The road to Milam, up the Gori-Ganga river, winds between precipitous cliffs, and is very dangerous in parts. It could be improved, but only at considerable expense.



The Niti pass lies at the top of the valley of the western Dhauli, and is

**The Niti Pass.**

easy to cross; the roads leading up to it, however, are very bad in places, and, from Joshimath onwards, can nowhere be termed good. The roads as far as Joshimath are, on the other hand, being rapidly improved. Between that village and the Niti the tracks wind up and down terrific slopes, cross huge precipices by means of half-rotten stakes driven into the rock, and sometimes (as in the Raikana-Kharbasiya gorge) disappear altogether. From Joshimath to the top of the pass is a distance of 60 miles, the usual halting-places being Tapobun, Serai-Tola, Juma, Malari, Niti village, Goting, Kharbasiya, and Kuenlung, the latter place being only about  $3\frac{1}{2}$  miles below the crest of the pass. From Malari there is a path along the Girthi river which connects with the Kote plateau, but it is a very difficult route and, being rendered doubly dangerous by falling stones, is seldom used. Niti village is the last place where food-supplies can be procured or where cultivation is carried on; and beyond Goteng (the next halting-place) no fuel can be obtained. After traversing the Raikana-Kharbasiya gorge (about 8 miles from the crest of the pass), the difficulties of the route are over. Just below the pass on the Tibetan side is the Sherki river, and the winding descent to the stream is the only difficult march on the north of the pass. The Niti is open from the middle of June to the end of September, and is practicable for mounted infantry and mountain artillery. Gartok is reached by way of Wuti, Daba Jong, Talung, and Misar. The improvement of the route to the Niti pass is receiving the attention of the Government of the United Provinces.

The Mana pass (also called the Dungri La and the Chirbitiya La) lies at the head of the Saraswati valley. From

**The Mana Pass.**

Joshimath to the top of the pass is 6 marches. Mana is the last inhabited village and the last place where crops are raised. The Mana valley is much more difficult to traverse than that leading up to the Niti; it is more elevated, and, even in summer, snowbeds and glaciers have to be reckoned with. The path, which keeps mostly to the left bank of the river, is at best a very bad one. At its summit the pass does not open out, but maintains its ravine-like form, the steep mountains on either side being covered with perpetual snow. The road would require considerable improvement for military purposes, and in its present condition cannot possibly be regarded as a feasible line of advance.

The routes into Tibet from the Punjab and Kashmir remain to be considered.

The present limit of the Hindustan-Tibet road is 165 miles north-east of

**The Hindustan-Tibet road.**

Simla, up to which point it is in very good condition, but the remaining  $3\frac{1}{2}$  marches to Shipki, over which unladen ponies and mules can only move with the greatest difficulty, minimise the utility of the route from a military point of view. During the last forty years estimates for the completion of the road have varied from Rs. 80,000 to Rs.  $2\frac{1}{2}$  lakhs; but so far none of these have been accepted, and the project has for the present been abandoned. The most recent estimate (Major S. H. Powell, R.E.) is Rs. 2,03,570; this survey proposes to keep to the right bank of the Sutlej to a point 2 miles above the village of Poo, and then to follow the existing path to Namgia. From Namgia to Shipki three tracks exist:—

- (1) The summer path over the Lakong Ma Pass (15,911 feet), passable by unladen mules and ponies.



- (2) The coolie path crossing the same range by the Pimig La (13,640 feet), used by travellers and porters on foot and by unladen sheep and goats.
- (3) The winter path through the Suttlej gorge, used by able-bodied men only.

The first of these rises six thousand feet by a steep, crumbling path, with gradients of 1 in 3 and 1 in 4; it is free from cliffs and dangers, but in its present state is most severe on animals. Rawling crossed it with his mules unladen in December, 1904, but the season was exceptionally favourable, and the road is generally closed from December to April. The descent on the Shipki side is also by a steep zig-zag path over an open, stony hillside. The length of this route, as at present graded, is  $8\frac{1}{2}$  miles. The second route rises from Namgia for three miles along the stony and rocky hillside that forms the left bank of the Suttlej to over 11,000 feet and drops into the Hopsang ravine, which is the frontier line. The descent is at first down the spine of a narrow, rocky projection, and then down a funnel-like crevice in the rock. The present line is not capable of improvement into a mule track. This route is also closed by snow for about three months; its length is  $8\frac{1}{2}$  miles. The third route crosses the Suttlej by a twig rope bridge below Namgia, thus avoiding the lower cliffs of the Hopsang. It rises along the right bank by a steep track leading to the monastery of Tashigang, but drops again after much cliff-climbing to the Suttlej, which is crossed by a natural rock-bridge 5 miles above Namgia. The path rises up to the stony under-features formed by debris from the cliffs above, and passes by ladders of tree-trunks and such artifices round the cliffs at the toe of the range crossed by the Pimig La and Lakong La routes, still keeping within 300 feet of the river. Thence it continues to ascend the gorge by debris slopes, and after rounding one more cliff by a dangerous climb, rises easily from the river to Shipki. Though at present the most difficult, it is this latter route which is the most favourable for a new alignment.

From Shipki to Gartok there are two routes. They cross to the right bank of the Suttlej by a frail cantilever bridge which lies 4 miles above Shipki, and would have to be replaced for military purposes. The Chumurti route (which was followed by Mr. Calvert in 1906) carries the bulk of the trade; it proceeds *via* Myak and the Drongmo La (16,100 feet). Between the Drongmo La and Gartok, which is 344 miles from Simla, the *Op nala* is the only serious obstacle. The camping grounds are all said to be good, and the country to be fairly level; the road is fit for laden yaks throughout, and for laden mules and ponies after the first two stages. The second route follows the valley of the Suttlej; in its present condition it is quite useless for military purposes—Ryder and Rawling both describe it as the worst they had ever seen.

A route into Tibet a short distance west of Shipki is that followed by the Bashahri traders. It leaves the Hindustan-Tibet road near Kanam and proceeds by way of Sungram to the valley of the Spiti river, and thence past Shealkar into Tibet at the junction of the Para Chu. From the border the path follows the Para valley to the junction of the Sumkhil, and thence crosses the Bodpo La to Chumurti and Tashigong. The Tibetan portion of the route is generally easy and passable by laden animals, but the descent from the Bodpo La is exceedingly difficult and would necessitate very heavy and expensive work for six miles. Considerable labour would also be required on the descent from the Bangru La to Tashigong.



The route used by the Kulu traders of the Kangra district passes through Spiti, and crosses into Tibet by the Shang-rang La. It then enters the Chumurti

**The Shang-rang La route.** country, and leads due east over fairly easy ground into the Indus valley, crossing by either the La-o-che La or other passes to the north. The path is only used by coolies or traders, who are unable to bring animals other than sheep along it, so it may be considered impracticable for military purposes.

Of the routes into Tibet from Kulu and Lahul, that which connects Sultanpur with Rudok by way of the

**Route between Sultanpur and Rudok.** Baralacha Pass appears to possess special advantages. At no point does it reach

an elevation of 17,000 feet; it is passable for laden mules throughout; grazing is good; and other supplies plentiful. It passes through Katrain (leaving Nuggar two miles to the east), Manali, and Rala, to Khoksar in Lahul, crossing the Chandra river by a wooden bridge. The right bank of the Chandra is followed as far as Kailang, where the road turns north-east through Kolang, Darcha, and Zingzing-bar to the Baralacha Pass (16,200 feet). The Ladakh boundary is reached at Lingti (or Serchu), and, after crossing the Tsarap river and the Lahulung Pass (16,630 feet), the route passes through Ganglachal, Kiangchu, and Drausiru to Ngore, where it leaves the Kulu-Leh high-road and branches off to the east. The Indus is reached at Baljar, and the left bank followed up stream as far as Dongtchi. Crossing the river at this point, the road takes a generally northerly direction, crossing the frontier into Tibet by the Richen La to Singzhang, where it meets the *Janglam* highway between Leh and Rudok.

There are a few other trade routes into Western Tibet from Lahul and southern Ladakh which meet the *Janglam*

**The Leh to Lhasa route (the *Janglam*).** at different points; they are, however, of little importance. The only route

from the west which merits any attention is the *Janglam* itself in its western extension into Ladakh. For the first portion of the route (from Leh to Demchok) there are two alternative roads: one follows the valley of the Indus the whole way, the other branches off to the east across the Chang La to Tankse, and reaches Demchok by way of the Pangur Tso and Rudok. Thence the *Janglam* proceeds by way of Tashigong to Gargunsa, keeping to the valleys of the Indus and its tributary, the Gartang Chu. The 34 miles between Gargunsa and Gartok can be covered in two stages, for the "going" is easy, and, as the Gartang Chu is fordable at any point, and flows through a broad, level valley, either bank can be followed. From Gartok onwards the route is so fully described in "Routes in the Brahmaputra, Sutlej, and Indus Valleys" that it need not be set out in detail here. It crosses the Jerko La, (16,200 feet) to Missar, and thence over the Sha La (15,900 feet) to Barka, where excellent grazing is found, and where a hundred *maunds* of grain are always stored. From Barka the road follows the northern shores of Rakhas Tal, Manasarowar and the Gunchu Tso to the Miriam (or Mayum) La (16,900 feet), an easy pass whose western face is slightly steeper than the descent on the east. The next place of any importance is Truksum; 52 miles further is Tradum, consisting of a *Gompa*, two rest-houses, a *Tasam*, and several tents. Proceeding eastward, the road passes through Nyak-ku and Sarnu to Saka Jong which is also connected with Tradum by a road on the right bank of the Tsang-po. At Gya Tso, a small fresh-water lake 17 miles beyond Saka, the road turns to the north and, leaving the Tsang-po, crosses the Kur La (16,700 feet) to the valley of the Raga. Lhatse is reached by way of Gyotro



and the Sang, Pang, and Gang passes, the Brahmaputra being crossed one mile below the Jong by means of a ferry. The river is followed as far as Pin-dzo-ling (where it can be crossed by a net bridge supported between two parallel chains), and thence the road keeps well south of the right bank to Shigatse. The main route from Shigatse to Lhasa follows the valley of the Nyang Chu *viâ* Jorkye, Nu-pu-chou-dzo and Dongtse to Gyantse, crossing the river  $2\frac{1}{2}$  miles from Gyantse by means of a substantially built bridge of eight stone piers with a stout 16-foot timber roadway capable of bearing Field Artillery fully horsed. An alternative route from Shigatse continues to follow the valley of the Tsang-po to Chaksam, but it is difficult and rarely used for trade purposes. The onward route to Lhasa from Gyantse is that already described in connection with the road from Siliguri.

The condition of the *Janqlam* varies considerably in different districts; sometimes it is a scarcely recognisable track, at others it is a well-defined path maintained in a good state of repair. It is announced that the Lhasan authorities are contemplating the construction of a proper road between Gartok and the capital, but work has not yet been commenced. The following routes (which will be found described in the Route Book) branch off from the *Janqlam* :—

From Shushul a road leads to Noh, from which village roads branch off to Khotan (*viâ* Polu) and to Lhasa (*viâ* the Dangra Yum Tso).

#### Various roads in Western Tibet.

From Rudok a road leads to Thok Jalung *viâ* Rawang.

From Tashigong a road leads to Spiti *viâ* Chumurti.

From Gartok roads lead—

(1) to Thok Jalung *viâ* the Giuguti Pass (19,500).

(2) to Shipki (a) *viâ* Chumurti.

(b) *viâ* the Sutlej valley.

(3) to the Mana Pass *viâ* To-ling and Chuprang.

(4) to the Niti Pass *viâ* To-ling and Daba.

From Missar a road leads to the Almora passes *viâ* Gyanema.

From Barka roads lead—

(1) to Kailas.

(2) to Gyanema.

(3) to the Lippu Lek *viâ* Taklakot, passing between Rakhas Tal and Manasarowar.

From Tradom a road leads to Saka Jong *viâ* Rela.

From Saka Jong a road leads to Lhatse Jong *viâ* the Tsang-po valley.

From Lhatse a road leads to Dingri, and thence to Nepal.

From Shigatse roads lead—

(1) to Chaksam *viâ* the Tsang-po valley.

(2) to Khamba Jong *viâ* the Rhe Chu valley.

#### INLAND WATER COMMUNICATIONS.

The only river in Tibet which is navigated for any distance is the Tsang-po. A regular system of boat traffic is known to be carried on between Lhatse and Shigatse; hide-boats are the chief craft, and they are utilised for passengers as well as for goods and live stock. West of Lhatse the river is crossed at various points by means of ferries, but there seems to be no regular navigation. The ferry boats are usually square-cornered, and of the type already described in connection with the crossing of the Brahmaputra at Chaksam Chori. As a rule only one boat is available at the ferries, and this has often been tied up to the bank for so long as to be



almost useless. From Shigatse the Tsang-po is navigable to a point 50 miles down stream, below which the river narrows and becomes too rough and shoaly for hide boats. The landing place at this point is known as Tag-sa dru-kha. From Chusul there is said to be a systematic service of large hide-boats down the Tsang-po towards Chetang, but from this point eastwards nothing definite can be said, as the river has only been scantily reported on, and long stretches of it still remain unvisited. In view of the large volume of water which issues from the Dihang valley into Assam, it seems probable that the river is generally navigable in its lower reaches, but falls are known to exist at intervals.

No system of navigation exists on the rivers of Eastern Tibet, except by hide coracles, whose carrying capacity is generally not more than two men and a limited quantity of baggage.

#### RAILWAYS.

No railways exist in Tibet. The construction of a line to Batang is said to have been under the consideration of the Peking Government in connection with the proposed colonization of the Batang district, but the project has not been heard of for some years and appears to have been abandoned.

#### TELEGRAPH AND POSTAL SERVICES.

The only telegraph line in Tibet is that between Gyantse and Sikkim *via* Phari and the Chumbi valley. Under the Tibet Trade Regulations of 1908 Great Britain is prepared to consider the transfer to China of this line when the telegraph lines from China reach Gyantse : in the meantime, Chinese and Tibetan messages are to be duly received and transmitted by the line constructed by the Government of India. In spite of a clause directing that China shall be held responsible for the due protection of the line beyond the limits of the Indian frontier, wilful damage is still causing frequent interruptions. Orders have been issued by the Chinese Government for the extension of the line from Gyantse to Lhasa.

The Chinese telegraph line to the eastern frontier of Tibet has reached Batang, but the line shows signs of hurried and careless erection. It is proposed to extend this line to Lhasa, but Mr. Dresing, the Foreign Adviser to the Telegraph Department, considers the undertaking to be almost impossible. The line would run for some 600 miles through an unknown, and in parts an unfriendly, country, and its maintenance would be a serious task. If a land line is to be constructed, Mr. Dresing favours following the trade route from Kashgar to Lhasa, but he advises, as the best solution to the question, the establishment of wireless telegraphy between Batang and Lhasa, for which he considers the nature of the country to be suited.

A regular post office was opened at Gartok in 1906, and a service of *dal* runners established on the Hindustan-Tibet road. The Government of India maintain a postal service to Gyantse, but, under Article VIII of the Tibet Trade Regulations of 1908, the question of the abolition of the Trade Agents couriers (*i.e.* the postal service to Gartok and Gyantse at present maintained by the Government of India) will have to be taken into consideration by Great Britain and China when efficient arrangements have been made by China in Tibet for a postal service. The Chinese Postal Department are already moving in the matter.



## CHAPTER VI.

### FORTS.

Tibet is so well protected by natural barriers that she has little need of artificial frontier defences. Such inland forts as exist at the present day are, for the most part, the survivals of bygone feudal warfare, and were erected (some as much as six or seven centuries ago) more with a view to internal defence than as protection against outside aggression. Under the altered political conditions which followed the establishment of Chinese suzerainty in Tibet most of these forts have lost their importance, and have been allowed to fall rapidly to ruins. The few, however, which lie near the southern frontier on the main approaches to the capital or on the more important trade routes, have been either rebuilt or are periodically repaired to meet the requirements of the recently established policy of exclusion.

These forts are generally erected on commanding sites overlooking important strategical points such as a pass or the passage of a river. Sometimes they are found perched high up on the summit of an almost inaccessible spur or peak, or seemingly balanced on the sharp edge of a knife-like ridge, commanding a wide expanse of territory or overlooking the pass from one valley to another. Those that lie in the valleys are usually built upon some rising piece of ground or rocky projection from the general surface of the plain, and are so constructed as to command an extensive field of fire and view. As a rule their strength lies rather in their inaccessibility than in any engineering skill that has been bestowed upon them; they present an imposing appearance, but are generally primitive in architectural design. Built somewhat after the fashion of the mediæval castles of Europe, these Tibetan strongholds, with their keep, bastions, ramparts and loop-holed parapets, present from without an appearance of great massiveness and strength, but a visit to the interior will generally reveal the flimsiness and dilapidation of the structure. The periodical repairs are carried out under the supervision of men who are unacquainted with the power of modern fire-arms, while the labour employed is generally half-hearted, and aims rather at an appearance of solidity than at any real defensive strength. Nevertheless the walls of these strongholds are in most cases of sufficient thickness to withstand the fire of light artillery for a considerable time, and, if held with any determination, the larger forts would be difficult to assault on account of the height of the parapets and the precipitous nature of the hill sides on which they are generally built. As a rule, the arrangements for the water-supply of the garrison are eminently unsatisfactory; rain-water is generally collected in water-towers in the interior of the building, but during the dry season it is improbable that any of these forts could withstand a protracted siege.

These Tibetan forts are generally known as *Jongs*. The actual meaning of the word Jong, however, is the headquarters of the provincial official known as the *Jongpen*, and the addition of the word to the name of a town or village



does not necessarily imply the existence of a fort at that place; the village of Saka Jong, for instance, is the official residence of the two *Jongpens* of the district, but it is merely a straggling collection of mud hovels and contains no semblance of a fortified post.

Before proceeding to give a detailed description of the different *Jongs* in the neighbourhood of the British Indian frontier or on our line of advance to

#### Fortified Monasteries.

Lhasa, two other forms of fortification may here be conveniently mentioned, namely, monasteries and walls. Most of the larger monasteries throughout Tibet have, at one time or another, been fortified. The defences are rarely of a formidable nature, and generally consist of nothing more than a high wall of no great thickness, which surrounds the entire establishment. In Ladakh the monasteries are fortress-like buildings with massive walls and protruding bastions, portions being erected on different levels of the mountain-side and seeming to climb one above the other; the foundations may rise from the edge of a sheer precipice of two or three thousand feet, of which the very walls of the monastery appear to be a part. Further east, in Tibet proper, the sites, though hilly, generally include some portion of level ground, and the buildings are not so crowded or heaped up. The Pal-kor Chö-de at Gyantse, surrounded by a 20-foot wall, buttressed and loop-holed, is a typical example of a fortified monastery.

With regard to walls, the Tibetans set great reliance in the improvement

#### Tibetan walls.

of naturally strong positions by constructing walls along them. These walls are generally extremely well constructed and provide one or two lines of well built loop-holes and partitions for each man, with flank and head cover, and a small excavation behind the foot of the wall for a man to sit in with perfect safety. They are built of stone, and are generally from six to eight feet high, and from three to five feet thick. "Had it not been for the superiority of our artillery and the demolition parties with gun-cotton for blowing them down," writes Brigadier-General Macdonald, "we should have suffered very severely in attacking Tibetans holding fortified and walled positions."

The more important forts in the neighbourhood of the Indian frontier and on our line of advance to Lhasa, are Khamba Jong, Phari Jong, Gyantse Jong, Nagartse Jong, Pede Jong, Shigatse Jong, and Lhatse Jong.

Khamba Jong lies eight miles north-west of the Kongra La (the northernmost pass from Sikkim into Tibet), and commands the approaches by this route

#### Khamba Jong.

towards Shigatse and thence to Lhasa. The fort is an imposing structure of two storeys, crowning, in the usual Tibetan fashion, the crest of a sharp hillock, the ascent of which is made by flights of stone steps. The *Jong* dominates a wide, flat stretch of earth and wormwood, dotted with big boulders, and here and there affording a scanty pasturage of coarse grass; the plain is separated from the main Himalayan backbone by a range of low hills. The *Jong* is used by the Tibetans as a gaol, and is circular in shape, with a circumference of about 1,500 paces. The walls are constructed of uncemented stone and have an average thickness of six feet. In the middle of the fort is the entrance to a subterranean passage which leads to a small stream of water that washes the base of the mound on which the fort is built.

Phari Jong lies some eight miles south of the Tang La on the main road between Chumbi and Lhasa, and is situated

#### Phari Jong.

in the centre of a plain with open country for a mile or so on all sides. The fort is clearly a combination of Chinese



and European design; its date, as ascertained by papers at Lhasa, is said to be about 1500 A. D. A well constructed stone parapet of 18 feet, tapering inwards towards the crest, and provided with corner bastions, surmounts a low hill about 20 feet in height, which furnishes an extensive and gently sloping glacis. Above this, occupying the centre of the hill, stands the keep, about 50 feet in height and a hundred and twenty wide, of three storeys, and irregularly buttressed. The fort stands square to the points of the compass, each side of the parapet being about 120 yards in length. There are two entrances, one in the centre of the north face, the other at the south-east corner. The peculiar features of its construction conclusively prove that the place was built in unreasoning imitation of some European model, for the little machicolated galleries which bestraddle the corners of the outer bastions are entirely useless. Nothing could be dropped from them, as they dominate precisely the points at which, in any conceivable circumstances, attack would *not* be delivered. Moreover, they are of the flimsiest construction, and, at present at any rate, do not even possess floors. Inside, the Jong is dark, badly constructed, and, to some extent, positively dangerous, and the seemingly solid walls are actually thin shells of granite masonry, the interval between packed with loose stones and mud. In many places one shell has fallen and the interior beams are supported wholly upon the other. At the time of the occupation of Phari Jong by the Expedition of 1904, a large part of the northern wall had quite recently collapsed.

Ascent to the upper storeys is made by steep rickety ladders of rough-hewn logs. In the middle storey are the barracks of the garrison, and on the upper storey is the citadel, with the residential quarters of the two joint Governors and their offices. Many of these high-perched rooms are quite unsafe, owing to the walls being badly cracked and having fallen out of the vertical. The upper parapets and balconies are all of peat sods pinned together with wooden spikes, so as to lessen the weight of this superstructure on the flimsy supporting walls. This rim of peaty turf is bordered below, on its supporting rafters, by a strip of red ochre, which helps to bring out boldly the detailed form of the building, as the rest of the walls are white-washed.

Phari Jong is kept directly under the control of Lhasa, in view of its important position in relation to India. At the present time, however, (1909), it shows no signs of having been repaired since 1904, and is practically a ruin.

Gyantse Jong is an irregularly constructed fort crowning a rocky and precipitous hill which rises with almost perpendicular cliffs from the Nyang Chu to a height of 450 feet above the plain. It is the official residence of one of the two *De-pöns* of Tsang, and its garrison ordinarily consists of fifty Chinese soldiers under a *Chein-tsung*, and five hundred Tibetans under two *Rupöns*. The name of the hill on which the Jong stands is *Gyal-kar-tse-mo*, or "the Dominating Peak," from which the town gets its abbreviated title of Gyantse. *Gyal-kar-tse-mo* is connected by a saddle with another rocky spur of a hill behind it, about a mile and a half to the east, on the southern slopes of which, like an amphitheatre overlooking the town, is situated the strongly fortified lamasery of Pal-kor Chö-de. Between these two rocky hills, on both sides of the saddle, lies the town of Gyantse, consisting of about a hundred well-built, two-storeyed houses, some of which also curve round to the south underneath the walls of the fort.



The majority of the buildings composing the *Jong* itself are solidly built of masonry throughout, but the upper portion of some is constructed of mud brick. The roofs of all buildings are flat and surrounded by a low mud parapet four to six feet high, and  $1\frac{1}{2}$  to 2 feet thick. None of these buildings are loop-holed, nor are the parapets provided with loop-holes or head-cover of any description. There are three gates giving entrance to the *Jong*, all of which could be demolished without difficulty by explosives or axes. The flanking towers being devoid of loop-holes, a demolition party would be practically safe from the defenders' fire as soon as it had gained the porch of the gate-way. There is no system of covered ways to and from the different buildings which comprise the *Jong*, and the shape of the hill is such that the whole are visible from the south.

Owing to the precipitous nature of the rock the *Jong* is practically inaccessible on three sides—the north, west and south. At the eastern extremity is a small square tower connected by a wall with the northern entrance, and this offers the best chance of success to a storming party, the wall being only five to six feet high and the hill at this point rising by a comparatively gentle gradient. Thence the northern gate could be captured without any great difficulty, and the possession of this point would cut off the defenders from any means of exit, for the interior approaches to the other two gateways are exposed to fire from the south. There is no water-supply in the *Jong* itself, and in winter all water would have to be brought from the river, one and a half miles west of the town. From April to October there are numerous irrigation cuts which flow through the outskirts of the town, but these could easily be cut off at the points where they leave the river. A well is reported to be situated inside the walled enclosure of the Pal-kor Chö-de.

It is reported that an estimate of 70,000 Tibetan *mohars* has been submitted to the Chinese Government for the purpose of rebuilding the fort at Gyantse, and that sanction for the expenditure of 40,000 *mohars* has been received. The Tibetans were given a verbal assurance by Colonel Young-husband that the rebuilding of *Jongs* would not be against the convention, since they are used as residences; but fortification walls have been constructed at Gyantse in addition to the residential quarters, and these are clearly contrary to the letter of the treaty. Though it may be too late now to have these walls demolished, the fact of their construction is a clear violation of the Lhasa Convention.

Neither Nagartse Jong nor Pede Jong present any serious obstacle to advance, and it is only their position on the direct line of communication between a force operating beyond the Tsang-po and its base in India that gives them any strategical importance.

Nagartse Jong is situated on the western shore of the Yamdrok Tso, north of the isthmus which connects the peninsula of Samding with the main land, and lies about a mile from the water's edge. The fort, which is small in size and crumbling in condition, is built on the extremity of a spur projecting from the hills to the west; the latter completely command the building. The condition of the walls is such that they could not long withstand artillery fire.

Pede (or Palte) Jong is situated sixteen miles north of Nagartse, and rises abruptly from the shore of the Yamdrok Tso. Like the fort at Nagartse, it is in very dilapidated condition, and is completely commanded from the hills to the west, from which it is within easy range of mountain guns. It is not a



Government *Jong*, but belongs to the local nobleman of the neighbourhood, so accumulations of grain, etc., are not likely to be found in it. A short distance beyond the *Jong* are the crumbling ruins of another old fort, and a modern loop-holed block wall at the sixth mile, where a spur falls from the Dok La into the lake. The wall is continued upwards along the crest of the spur for over seven miles. It was not defended in 1904, but if held with any determination would present a serious obstacle.

On the onward route to Lhasa the ruined fort of Chusul is perched high up on the cliffs near the junction of the

**Chusul fort.**

Kyi Chu with the Tsang-po, and some distance below it is a second and smaller fort, built upon the crest of a knife-like ridge. These two buildings are now more or less tumbling to pieces, but have evidently been of great strength, while the precipitous nature of the cliffs makes them practically inaccessible. On the right bank of the Tsang-po, and some ten miles east of Chaksam, is the large fort and monas-

**Jongkar Jong.**

tory of Jongkar, which, though old, is still serviceable, and commands the line of communication along the river. In the event of protracted operations around Lhasa, the occupation of this post might be necessary for the protection of the ferries at Chaksam and Kamba Parti.

No fortified post exists between Chusul and Lhasa. Lhasa itself possesses no fort, but the Po-to-la is a formidable stronghold, and the ridge which connects it with the Medical College completely dominates the town. It is reported that large quantities of building materials are being collected near the Debung monastery, and that a wall is shortly to be constructed around the city.

Lhatse Jong is situated on the right bank of the Tsang-po, 96 miles west of Shigatse. In the centre of a plain,

**Lhatse Jong.**

and rising sheer from the river bank, is an almost perpendicular rock; on this stands the *Jong*, at a height of 270 feet above the level of the plain. Covered ways run from the fort to the foot of the rock, on the south-western face of which is the chief entrance. There are many gateways, only one of which, however, has a door. This door is made of 3-inch wood, bound with iron. The *Jong* itself consists of many buildings cleverly constructed on the precipitous sides of the rock. They have very thin walls, and are in poor repair; the interiors more nearly resemble dwelling-places than forts. The north-west face of the *Jong* lies sheer above the Tsang-po, from which there is a water-entrance; at this corner there is also a water bastion built directly over the river. One mile below the *Jong* is a ferry consisting of two wooden boats and three small skin rafts; each boat can carry eight ponies, together with their loads, at each journey. One and a half miles further down the river is an iron chain bridge, the chains, which are 200 feet in length, being supported by two high stone piers.

Situated close to the foot of the *Jong* and surrounded by mud and stone walls twenty feet high and five feet thick

**Other buildings at Lhatse.**

at the top, is situated the monastery of Lhatse. Seven towers project from the walls for the purpose of flank defence; along the top of these and through the towers runs a screened pathway three feet in width. The monastery, which consists of the usual collection of buildings, is the residence of some three hundred monks. The village



of Lhatse lies to the east of the monastery and *Jong*, and is separated from the former by an open stretch of ground forty yards wide. To the south-east is a walled garden comprising about an acre of ground with a summer-house. Sufficient grain and *bhoosa* is said to be stored in the *Jong* and monastery for the requirements of two thousand men and animals for one month.

Shigatse Jong is an immense fort situated on a promontory of a rocky range lying to the west. The height of the rock on which the fort is built is about a hundred feet above the level of the plain. From this mound rise the walls of the fort, nearly 250 feet in height. Its total length is about 900 feet and its width about 270 feet. Being of great size and seemingly well built, it has a very imposing appearance from outside; but when examined from inside the whole building is seen to be rotten from top to bottom and fast falling into ruin. It has been badly designed, with few loop-holes and practically no flank defences. It is commanded by a range of hills lying to the west, where there are good gun positions within a range of 1,000 yards of, and many hundred feet above, the *Jong*. It could offer no resistance to mountain guns. The most favourable point of attack would be from the west, where there is no flank defence, and where the defenders would be subject to a plunging fire from the hills close by. The building is of dressed stone, and has two entrances—one at its western end, and the other at its south-eastern corner. Both these entrances have doors made of 4-inch wood. A round tower at the south-eastern end is the water bastion, and, in addition to this supply of water, rain is collected in tanks in the interior of the building. The permanent garrison is said to consist of 1,000 soldiers, but during the visit to Shigatse of the Gartok Expedition in 1904 the whole of the garrison were said to be on leave, and neither soldiers nor guns of any description were visible. Shigatse Jong is the permanent residence of two *Jongpens*.

To the south of the *Jong* and distant about 600 yards is the fortified enclosure of the Chinese garrison. It is square in shape, with walls 30 feet high and 400 feet long. In the centre of each wall is a large doorway of rotten timbers. The interior is filled with a crowded collection of mud buildings. The Chinese troops quartered here are said to number 250. This enclosure is dominated by the *Jong* and by the range of hills to the west.

The town of Shigatse lies to the north-east and also to the south of the *Jong*; the houses are built of stone and are flat-roofed. To the east of the town, on the left bank of the Nyang Chu, is the summer residence of the Tashi Lama, consisting of some rather insignificant buildings surrounded by trees and a white-washed wall 7 feet in height. The monastery of Tashi Lhunpo is situated on the southern slope of a rocky range one mile south-west of the *Jong*. The buildings are of stone, white-washed, and in good repair, with two main entrances—one from the east, the other from the west.\*

\* Dr. Sven Hedin having spent a month at Shigatse as the guest of the Tashi Lama, the above information regarding the *Jong* and other fortified posts should be considerably supplemented as soon as the explorer's narrative is published.



## CHAPTER VII.

### HISTORY.

The early history of Tibet is obscure, but from the annals of the T'ang dynasty it appears that the Tibetans of

the present day are the descendants of those tribes of nomads and shepherds who from the earliest times inhabited the region about the Koko Nor and who, from the 11th century B. C., were collectively known to the Chinese as *Chiang*. In the annals of the T'ang dynasty we are told that Fanni, a scion of the southern Liang dynasty who had successfully governed Anshi (Yarkand, Kashgar, and other western countries) and afterwards Linsung (the modern Kanchou), fled westward in 433 A.D. with all his people across the Hoang Ho, and founded a State amidst the *Chiang* tribes with territory extending over a thousand *li*. His original domain was apparently along the upper waters of the Yalung river, but by his mild and just rule he was soon enabled to establish his way over an immense territory.

The dawn of civilisation in Tibet is an indeterminate quantity and has generally been regarded as synchronous with the introduction of Buddhism and the art of writing in the reign of King Srong-tsan gam-po in the 7th century A.D. A recent discovery of Tibetan manuscripts by Dr. M. A. Stein on the southern borders of the Takla Makan desert has shown it to be probable that Tibet emerged from barbarism at some much earlier date, but for the present purpose the era of King Srong-tsan may be taken as a convenient starting-point for a sketch of the history of Tibet.

The reign of this illustrious king (son of Nam-ri srong-tsan) is famous in Tibetan annals for the introduction from

India of Buddhism and the art of writing, as well as for the foundation (in 639 A.D.) of Lha-Idan, afterwards Lhasa. In his proselytism he received much assistance and encouragement from his two Buddhist wives, one a Nepalese princess, the other an Imperial daughter of China. As a conqueror he extended his sway from the still unsubdued *Chiang* tribes in the north to Ladakh in the west, and in the south he carried his power through Nepal to the Indian side of the Himalaya. How far south his kingdom extended is not known, but history relates that in 703 A.D., Nepal and the "country of the Brahmans" rebelled, and that the third successor of Srong-tsan met his death in attempting to restore his fallen power. It is curious that Indian history makes no reference to this period of Tibetan domination, but in Chinese annals it is mentioned as extending over Bengal to the sea,—the Bay of Bengal being known as the Tibetan Sea. Ethnological and linguistic evidence of Tibetan subjugation have, moreover, been discovered in recent years.

Mang-srong mang-tsan, the second son and successor of Srong-tsan, continuing the conquests of his father, sub-

dued the Tukuhan Tatars of the Koko Nor in 663 A.D. and even attacked the Chinese; the latter, however, after suffering some reverses, penetrated as far as Lhasa and burned the royal palace. The grandson of Mang-srong is noted for the activity with which he promoted the spread of Buddhism. Among other achievements he obtained for his son the hand of the accomplished daughter of the Chinese



Emperor Juy Tsong, but the lady arrived in Tibet only to hear of the death of her betrothed, and, after much hesitation, consented to become the bride of the father. In 730 she gave birth to a son (noted in the history of Buddhism for his strenuous efforts on behalf of the faith) who became the

Munitsan-po.

father of the famous Tibetan socialist, Muni tsan-po. Three times did Muni tsan-po enact that the wealthy should share their riches with the indigent and helpless, and three times was he compelled to acknowledge that the experiment had proved a failure, and that the rich had become still richer and the poor still poorer. Nothing of importance is recorded during the following

Ralpachen.

reigns until the king Ralpachen won renown by his careful retranslations of the Buddhist scriptures. In this reign a severe struggle took place with China, peace being declared in 821 and ratified at Lhasa the following year by the erection of bilingual tablets which still exist.

Subsequent to the assassination of Ralpachen by the partisans of Lang-dharma (who, after instituting a violent persecution of Buddhism, was himself assassinated), history is silent for a long period,—a period, it appears, of perpetual internecine warfare resulting from the partition of the country into two separate kingdoms. While two distinct dynasties were thus reigning in Tibet, another authority arose, destined to be the superior of both. At the invitation of the youngest son and successor of Lhade, king of the western

Atisha.

kingdom of Tibet, the celebrated Indian Buddhist Atisha left his monastery at Gaya and settled in Ngari in 1038. Besides his religious writings and teaching, he introduced the method of computing time by cycles of sixty years, and was the first of the several "chief-priests" whose authority became paramount in the country. In 1206 Tibet was conquered by the great Jenghiz Khan, and the Mongols were thus first brought into contact with Tibetan Lamaism. Some fifty years later, Kublai Khan summoned to his court the "chief-priest" of the Lamasery of Sakya in Western Tibet. The latter remained twelve years with the Great Khan and, at his request, framed for the Mongol language an alphabet imitated from the Tibetan. Though this form of orthography never proved satisfactory, and subsequently disappeared

Establishment of ecclesiastical rule in Tibet.

altogether, the Emperor was persuaded to embrace Lamaism as his faith, and actively promoted its doctrines in China and Mongolia. In return for his services, Kublai invested the priest with sovereign power over (1) Tibet proper, comprising the thirteen districts of U and Tsang, (2) Kham, and (3) Amdo. Henceforward, the Sakya Lamas became the virtual rulers of Tibet and remained so during a period of some seventy years.

In 1358 was born the great reformer Tsong-kapa. This saint, who built

Tsong-kapa.

the famous Gan-den monastery near Lhasa, was the founder of the reformed school of Tibetan Buddhism known as the *Ge-luk-pa* sect in contradistinction to the *Nying-ma-pa*. In all respects Tsong-kapa appealed to first principles, following Atisha and appealing for the re-establishment of ancient customs; he never disputed the authority of the Sakya Lamas. By the middle of the 15th century his followers were paramount in Tibet, and a dual spiritual authority was established at Lhasa and Tashi Lhunpo. Tsong-kapa died in

Geden-tub-pa.

1419, and was succeeded by his nephew Geden-tub-pa, who was installed as the first Grand Lama of *Ge-luk-pa* church and built in 1445 the great monastery



of Tashi Lhunpo. This divine, who was himself the incarnation of the Buddhisatwa Padma Pani as well as the inheritor of the spirit of Tsong-kapa and of Amitabha, resided at the De-bung monastery and does not appear to have been known as the Tashi Lama; but with him began that principle of perpetual reincarnation which is to this day the accepted system of inheritance among all the important personages of Tibet. The Mongols continued to interest themselves in the religion of the Lamas, and in 1576 the third successor and incarnation of Geden-tub-pa was summoned to the court of the

**Creation of Dalai Lama.** Mongolian ruler Akhan, and received the title of Tale, or Dalai ("Vast as the Ocean"). He remained, however, an ecclesiastic pure and simple, and it was not till the time of Ngag-wang Lo-zang that the Tale Lama obtained any civil powers.

Meanwhile, an abortive attempt had been made by Mirza Haidar, the

**Invasion of Tibet by Mirza Haidar.** erstwhile lieutenant of Sultan Said and cousin of the Emperor Baber, to "earn merit" by the destruction of Lhasa.

After the death of Sultan Said on the Suget Pass, Mirza Haidar continued to prosecute the *jehad* with much vigour, and, as part of his programme, he determined on an invasion of Tibet. Advancing from Ladakh in two or three columns by the route which to this day is still the great high-road between Kashmir and Peking, he succeeded in reaching a place named Askabrak (which Sir Thomas Holdich identifies as Shigatse) at the head of an attenuated following of only ninety mounted men. Though within easy reach of the capital (if Sir Thomas Holdich's assumption is correct), the heavy losses among his horses compelled him to retreat, and, overtaking the remnants of his army, he succeeded in reaching Gartok without molestation. The brief story of this disastrous campaign—the first authentic record of any expedition into the southern zone of Tibet—is not without interest. The route followed by Mirza Haidar was the well-worn *Janglam* of the present day; his army was composed of the same material that had successfully overrun great tracts of Central Asia in previous years; he himself had gained many victories in the highlands of Ladakh and Baltistan: nevertheless, his invasion of Tibet was a signal failure. We know that he encountered little opposition,—the only action he fought appears to have been against a force, not of Tibetans, but of men sent by a "Hindu Rai" and armed with short knives (presumably a body of Nepalese armed with *kukris*)—and yet he had to turn back at some distance from his objective with a following of only ninety men. Despite the enormous advances which the science of war has achieved since Mirza Haidar's day, the story of this campaign must still remain a striking object-lesson of the difficulties attending the conduct of military operations even in the less elevated regions of Tibet.

In 1640 the Mongol prince Gusri Khan led an invading army into Tibet,

**Invasion by Gusri Khan.** and having dethroned the petty princes of the country, made the then Tale Lama supreme. Ngag-wang Lo-zang established himself at Lhasa, where he built the Po-ta-la palace, and was the first of

**And establishment of the first Priest King of Tibet.** the Priest-Kings who have combined in their own person temporal as well as religious authority. In 1650 he visited China and was confirmed by the Emperor in his title of Dalai Lama; posing as the deity Avolokita in the flesh, he claimed that character of divinity which is now recognised as inherent in his successors.



After reigning for 35 years and firmly establishing his pretensions to divinity, he retired into hermitage and handed over the Sovereignty to his son Sangya Gyatso in 1676. The latter, having concealed the death of his father for sixteen years, set up on the throne a dissolute youth who so outraged public feeling by his profligate life that in 1706 he brought about the murder of the Regent. The protégé of the latter, not mending his ways, was, with the consent of the Emperor of China, deposed, exiled, and shortly afterwards murdered, notwithstanding his sacred personality. A revolt against the reincarnation theory was the natural outcome of these events, and an aged priest, having been elected as Dalai Lama, was confirmed in the title by the Emperor of China. Meanwhile, a rival faction of monks had procured a young child and brought it forward as the genuine claimant to the throne. The child was kept by his patrons at Si-ning until matters ripened, when he was produced and received considerable support. The conflict between the two factions resulted in a civil war, during which a band of Jungar Tatars swept down upon Tibet. The chief, Tse-wang

**Invasion by the Tatars of Jungaria.** Rabdan by name, advanced in person on Si-ning to secure the young Dalai Lama, and sent his brother (or cousin), Chereng Donduk, with 6,000 men towards Lhasa. The latter force was accompanied by several thousand camels, on some of which were mounted swivel guns which were discharged from their backs. This army reached the district south of the Tengri Nor in good condition and without loss. Between that lake and the capital they found a Tibetan force of 20,000 men drawn up to oppose their further progress, but few of them being soldiers, the advance of the camel corps and

**Battle of the Tengri Nor.** the noise of the swivel guns put them to flight, and the Tibetan General was killed. Continuing their advance, the Tatars entered Lhasa and pillaged the city. The story of this expedition is particularly interesting as emphasising the military possibilities of the Si-ning-Lhasa route from the Koko Nor.

The Tibetans appealed to the Chinese Emperor Kangshi for aid, and an army was promptly despatched to restore order. After retaking Lhasa and putting to death the Tatar usurper, the Chinese re-established the succession by re-births and installed the young claimant as Grand Lama. In 1720 Kangshi assumed formal suzerainty over the country and located two Chinese mandarins in Lhasa as political residents or Ambans. The new Dalai Lama was vested with spiritual rule only, the temporal power being placed in the hands of another with the title of King. On the assassination of the latter, the Chinese Emperor sent another army to Lhasa, cast the sacred person of the Dalai Lama in prison, and appointed the old monk named Kisri as Regent. Kisri was murdered by the Chinese Ambans in 1750, whereupon the Tibetans flew to arms and massacred the Chinese. Another punitive expedition was despatched from China to restore order, and since that time the Ambans have contrived, by fair means or foul, to assert a considerable control over the internal politics of Tibet.

We now come to Tibet's first contact with the Government of India. Warren Hastings had sent an expedition into Bhutan to punish some irregularities committed by the Bhutanese, and his object had already been accomplished when a letter of mediation on behalf of the Bhutanese was received by the Governor-General from the Tashi Lama,



It is noticeable that Bhutan is spoken of as "dependent on the Dalai Lama." Warren Hastings improved on the occasion by despatching a mission to Shigatse to establish trade relations between Tibet and Bengal.

In 1792 occurred the first Gurkha-Tibet war. During the latter half of the eighteenth century the Gurkhas under Prithi Narayan had conquered the whole of the Katmandu valley and overthrown the native Newar dynasties. They were now ready to indulge their warlike tastes and to extend their conquests in a new direction, and the fabled wealth of the great Tashi Lhunpo monastery proved a great attraction to them. Upon a pretext that the Tibetans were circulating base coin which they refused to withdraw, the Gurkhas declared war, and with an army of 18,000 men suddenly crossed the frontier and marched straight upon Shigatse. The Tibetans, taken by surprise, fled in dismay, and the Gurkhas were left to rob and to plunder without opposition. Appeals for help were sent from Lhasa to Peking, and the Chinese Government promptly despatched a force of 70,000 men under General Sand Fo. After rejecting the terms offered by the Chinese, the Gurkhas withdrew to Dingri Maidan, where they were attacked by the Chinese and completely defeated. They fled towards Nepal, vigorously pursued by Sand Fo, and, after one or two abortive attempts at resistance near the frontier posts of Nyanam and Kirong, they retired to Nyakot, one march north of Katmandu. Here a final stand was made; but the Chinese army, greatly superior in numbers and strengthened by a primitive form of artillery in the shape of leather cannon, overwhelmed the Gurkhas and drove them back with great slaughter. They were compelled to conclude an ignominious treaty with the Chinese general within a few miles of their capital.

The consequences of this war were unfortunate for the policy of the Indian Government with regard to Tibet. Under the Governor Generalship of Warren Hastings cordial relations had been fostered between the two countries, and the two missions which he had despatched to Shigatse had already borne some fruit in the shape of a steady increase in commercial intercourse. But it appears that the Chinese who had invaded Nepal conceived a suspicion that we had been assisting the Gurkhas during the campaign, and reports to this effect were sent to Peking. From that time commenced the policy of exclusion which has always been associated with our relations with Tibet; and any attempt to renew the friendly understanding established by Warren Hastings has been repulsed in the most uncompromising fashion.

In the year 1841 another military power violated the integrity of the Tibetan frontiers with even more disastrous results to itself than had attended the invasion of the Gurkhas. On this occasion it was a Dogra army which, under the command of General Zorawar Singh, was despatched by the Gulab Singh of Jammu to invade Tibet by way of Ladakh. Zorawar Singh, with a force of 5,000 men, advanced up the river Indus, and in May captured and plundered the monasteries of Hanle and Tashigong. He then made a rapid march and took possession of Rudok and Ghur without opposition. All the lamaseries were sacked, the gold and silver being set aside for Zorawar Singh himself, while the images and libraries were entirely destroyed. The authorities at Lhasa soon heard of this incursion, and, collecting a mixed force of Tibetans and Chinese, marched westwards to meet the invaders. About November 7th, Zorawar Singh learnt of the approach of this army,



which numbered about 10,000, and despatched a force of about 300 men under Nono Sungnam to meet it. This detachment was surrounded at Kar-dam-khar, and almost annihilated. The Nono himself escaped, and on November 19th was again despatched against the Tibetans with 600 fresh troops under the joint command of Ghulam Khan and himself. This force met a similar fate, both leaders being captured. Zorawar Singh, on hearing of this second defeat, advanced with his entire force of nearly 4,000 men from his position at Tirthapuri. On December 10th the opposing armies met, and opened a desultory fire which lasted three days. The cold was intense; and the fighting powers of the Dogras were much impaired by the wind and snow. Consequently, on the 12th, when Zorawar Singh, who by his personal bravery and example had to some extent maintained the *morale* of his troops, was struck by a ball in the shoulder, his adherents lost all discipline, and fled, the reserve of 600 men surrendering to the Chinese in a body.

Out of the entire Kashmir army, numbering with camp followers about 6,000 men, not 1,000 were left alive, and of these 700 were made prisoners of war. One hundred and twenty succeeded in making their escape across the Niti pass into British territory; the remainder perished from cold on the road. Zorawar Singh's head was cut off and removed to Lhasa, where it is said still to be preserved. This defeat was undoubtedly mainly attributable to the high altitude of the battle-field and to the extreme cold of mid-winter, the intensity of which was enhanced by the scarcity of clothing and fuel. Many of the troops had lost their hands and feet from frost-bite, and their very weapons had been burnt for fuel, while on the last day of the engagement only half of the original force was capable of taking part in the fight. The Chinese failed to follow up their victory, contenting themselves with plundering the dead, and killing, torturing, or carrying off the prisoners. In the spring of 1842 the mixed force of Chinese and Tibetans advanced into Ladakh and laid siege to the new fort of Leh, but hearing of the advance of a fresh force from Kashmir under Dewa Hari Chand, the besiegers fled ignominiously in a body to Rudok, where they fortified themselves, intending in the following year to attempt the recapture of Ladakh from Raja Gulab Singh. The Tibetan General was, however, captured by stratagem, while his position was turned, and the Chinese army was compelled to make a hasty retreat. Thus ended the war, and since its occurrence peace has remained undisturbed.\* In 1842 the frontier was demarcated by a party of Dogra and Chinese officials, together with Captain Cunningham and Lieutenant Strachey, and in 1846 Kashmir was formally made over to Raja Gulab Singh by the British Government.

In the year 1844 the scandals current in connection with the Regent compelled the intervention by the Chinese in the domestic politics of Tibet. During the early years of the century no less than three Dalai Lamas had perished suddenly while still youths or children, without any satisfactory explanation being forthcoming of the circumstances. Suspicion was naturally aroused and fell upon the Regent, a man named Si Fan, an inhabitant of the Chinese province of Kan-su. The Tashi Lama took the lead in the matter, and appealed to the Chinese Government to intervene in the interests of the newly appointed Tale Lama, to save him from the unenviable fate of his prede-

\*In the treaty signed at the conclusion of the war the Tibetan Government guaranteed to offer no hindrance to traders of Ladakh entering Tibet, to respect the old boundaries of Ladakh, and to allow the annual export of merchandise to Ladakh according to ancient custom.



cessors. In accordance with this quite reasonable request, a special envoy was sent from Peking. The Regent and his followers were arrested, and, as a result of the enquiry, and in spite of an attempted insurrection in his favour by the monks of the Se-ra monastery, Si-Fan was disgraced and banished.

After the banishment of Si-Fan in 1844, a young Lama was appointed as

**Pe-chi.**

Gyalpo by the Chinese, but, both he and the Dalai Lama being minors, a man named Pe-chi was instructed to act temporarily in his place. Pe-chi was a man of great ability and enlightenment, and has been well described by M. Huc. He was banished by the Regent proper when the latter came of age, but in the year 1863 internal troubles in Lhasa brought him again upon the scene, and he was able to resume his former position, maintaining it till his death in 1869.

The year 1854 saw the outbreak of the second Gurkha-Tibet war. This

**The second Gurkha-Tibet war.**

arose owing to the alleged ill-treatment of certain Nepalese merchants residing in Lhasa, and to the insulting conduct of the Tibetans towards one of the Nepalese missions returning from China. The Gurkhas gladly welcomed a pretext for regaining the tracts of border country lost to them in the previous campaign, and accordingly preparations were set on foot and troops were quietly concentrated near the frontier passes. Early in 1855 an army of 1,800 men under General Bam Bahadur advanced across the frontier, and by April, after one or two skirmishes, the Gurkhas had occupied both Nya-nam and Kirong. From Kirong a small force pushed on to Jonkha Jong, a frontier post a little further north, the Tibetan garrison retiring towards Dingri. By this time the Gurkha force had assumed considerable proportions, being reckoned at 27,000 regulars, 29,000 armed followers, with 36 guns and 8 mortars. No further hostilities took place for several months, but in September, after some futile negotiations, the Tibetans advanced in two columns on Nya-nam and Kirong. The eastern column attacked Nya-nam and defeated and put to flight the Gurkha garrison, who lost 700 men, 8 guns, and one mortar. The western column did not fare so well. Their attack on Jonkha Jong was repulsed, and the Tibetans fell back with a loss of about 1,000 men; but they maintained a large fortified camp between Kirong and Jonkha Jong, thus cutting off the latter place from its source of supply. Meanwhile, the Gurkha general, Dikar Shamsheer, came hastening up with reinforcements from Katmandu, and, making a sudden night attack on the Tibetan encampment, he cut his way through to the relief of Jonkha Jong, inflicting a loss on the Tibetans of some 1,800 men. After this reverse the Tibetans withdrew their forces to Dingri, closely followed by the Gurkhas. Internal troubles in Nepal now put an end to hostilities, and in March of the following year a treaty of peace was signed, whereby the Tibetan Government agreed to pay an annual subsidy of Rs. 10,000 to Nepal, and to permit the Nepalese Government to establish an agency and trading station in Lhasa; whilst arms and prisoners were to be exchanged by the belligerents.

In 1863 a quarrel broke out between the two small States of Derge and

**Disturbances in Eastern Tibet.**

Nya-rong in Eastern Tibet. Nya-rong attacked and overran a portion of Derge, but the Tibetans came to the assistance of the latter, drove out the people of Nya-rong, and finally occupied that State. Meanwhile the Chinese, taking advantage of these disturbances, invaded the Gya-rong district on the western border of Ssu-chuan, and completely subjugated it.



After the lapse of nearly a century the Government of India again took

#### Sikkim Campaign 1888.

up the question of trade with Tibet. In 1873 the Commissioner at Darjeeling was deputed to enquire into the position and prospects of trade with that country, and the advisability of constructing a road through Sikkim to the Tibetan frontier. He met some Tibetan officials from Chumbi, and found them to be as seclusive as ever and very jealous of our relations with the Sikkim Government. The proposed road was made a few years later, and in 1886 Mr. Macaulay of the Bengal Civil Service was allowed to organise a mission to Lhasa. He had been sent in the previous year to the Sikkim frontier to enquire into a trade route into Tsang, and had made friends with some subordinate Tibetan officials. He had then visited Peking and obtained a passport for a mission to visit Tibet. Eventually the project was abandoned in deference to further Chinese representations and in return for a much needed concession in Burma. The mission had meantime been actually organised and was ready to start, and its abandonment was the signal for an outburst of aggression on the part of the Tibetans. In the autumn of 1886 they built a stone wall barring the Jelap road, some miles within Sikkim territory. It was expected that the Chinese would be able to enforce a withdrawal, but this they either could not or would not do, and in March, 1888, when further delay was inadvisable, a force was organised for the purpose of vindicating our treaty rights.

The command of the force was given to Colonel T. Graham, R.A., and comprised the troops noted in the margin. Having assembled at Padong,

Royal Artillery . . .	4 guns.	it was divided into two columns, one
Derbyshire Regiment . . .	200 men.	under the command of Colonel Graham in
13th Bengal Infantry . . .	400 men.	person, the other under Colonel Mitchell
32nd Pioneers . . .	700 men.	of the 13th B. I. The latter column
Total: 1,300 men and 4 guns.		remained halted at Padong, while the
		former moved to Sedongchen, and next
		day drove the enemy from their positions.
		Lingtu was occupied without resistance,
		and the Tibetans retreated over

the passes into the Chumbi Valley. The main object of the expedition, *viz.*, the expulsion of the Tibetans from the Raja of Sikkim's territory, had therefore been effected, and it only remained to make the necessary dispositions to protect the exposed portion of the Sikkim frontier from reprisals. From a purely military point of view the most effectual means of gaining this end would have been to carry the war into the enemy's country, but the Government of India had deemed it advisable to limit the operations as far as possible to Sikkim territory, and had issued instructions to Colonel Graham to that effect. Accordingly the force settled down in an entrenched camp at Gnatong, while the Tibetans gathered beyond the Jelap La. On the 21st of May the Lieutenant-Governor of Bengal arrived at Gnatong, and, the fact of his visit being well known all over the country, a determined attack on the camp was made by the Tibetans on the following day. The enemy numbered about 3,000. They attacked at about seven o'clock, but by ten o'clock were in full retreat. Our losses were three killed and eight wounded; the enemy's losses were estimated at 100 killed. Colonel Graham failed to obtain the permission of the Government of India to pursue the enemy and inflict further punishment beyond the Jelap La, and in June preparations were set on foot for the return of the British troops to Darjeeling. Towards the end of July, while these movements were in progress, the situation underwent a change. The enemy were observed to be gathering in considerable



numbers, and to be building walls in the neighbourhood of the Chumbi passes. Colonel Graham accordingly applied for reinforcements. He had at that time only 500 men available for an offensive movement; while the latest news shewed that the number of Tibetans between Rinchengong and Kophu was 7,000; in reserve at Lingmathang, 1,000; and 500 at Phari. Besides these, 1,500 were said to have gone to the Nathu La, and many more were reported to be on their way. Reinforcements were promptly sent, and by the 25th August Colonel Graham had at his disposal a total force of 1,692 men and four guns.

Several insignificant encounters took place in which some prisoners were captured and other small losses inflicted on the Tibetans. Meanwhile communications were improved and blockhouses constructed along the road. At last the Tibetan commander made a bold move. Some two miles north of Gnatong the road to the Jelap La crosses a low ridge by a pass known as the Tuko La. On the morning of the 24th September it was discovered that the Tibetans had established themselves on the Tuko La ridge, and had rapidly constructed a wall three or four feet in height and nearly three miles in length. General Graham decided to assume the offensive, and advanced to the attack in three columns. The wall was taken without much difficulty, and the pursuit continued over the Jelap La to Rinchengong and Chumbi. The Tibetans' loss was estimated at 400 killed, at least as many wounded, and 200 prisoners; our loss was one officer and three men wounded. This concluded the fighting, and thereafter the Tibetans kept to their own side of the frontier at the Jelap La. On the 21st December the Chinese Amban arrived at Gnatong and negotiations began. No satisfactory conclusion was arrived at, and the Amban retired to Rinchengong, there to await, by the orders of the Chinese Government, the arrival of Mr. Hart, of the Chinese Imperial Customs Service, who finally reached Gnatong in March the following year. After a long exchange of views, an Anglo-Chinese convention was signed at Calcutta on the 17th March, 1890. The Tibetan claim to suzerainty over Sikkim was abandoned, and the Sikkim-Tibet boundary was defined. Trade matters were to be settled subsequently. The troops were not withdrawn until 1895, when fifty Military Police were left in Gnatong and two companies of Native Infantry at Gangtok. In 1896 the former were withdrawn and the Gnatong fort dismantled.

Meanwhile, some aggression had been shown by the Tibetans in another part of the country. In 1889 it was reported that they were encroaching on the Niti district of Kumaon and ill-treating British subjects there. A small force, composed of 209 men of the 3rd Gurkha Rifles under the command of Major C. Pulley, was moved up to the Tibetan frontier in November, 1889. At Barahoti, where the Tibetans were reported to have encroached, their traces, but no sign of life, were found, and the party returned to India without incident. The only difficulties encountered were the high altitudes and the severity of the climate.

From the very first it was evident that the Tibetans had no intention of observing the convention of 1890. The barrier across the road at Lingtu no longer existed, but another had been erected in the Chumbi Valley, on the Tibetan side of the new trade mart at Yatung. Passage was refused to all traders, and a duty was levied. In 1894 the Political Officer in Sikkim reported that the Tibetans claimed to

**Boindary Commisslons of 1895 and 1902.**



have nothing whatever to do with the treaty. In 1895 a commission was appointed to enquire into boundary and trade matters. Mr. White, the English member, found that the Chinese representatives came forward most reluctantly and the Tibetans not at all. The boundary pillars erected were immediately pulled down by the Tibetans. Various attempts to communicate with the Dalai Lama were made, but without success. All letters were returned, though it was evident that not one of them had been opened and read. In May, 1902, the Government of India determined to establish the proper boundary, and for this purpose Mr. White was directed to proceed to the frontier and eject the Tibetans, demarcate the correct boundary, and generally to assert our treaty rights, using force if necessary. The commission was accompanied by 150 rifles of the 44th Gurkhas, and proceeded to Giaogong where the Tibetans were reported to have made themselves especially aggressive, and where they had built a defensive wall within Sikkim territory. The Tibetans were expelled, the boundary surveyed without the assistance of either the Chinese or the Tibetans, and on the 6th August the party returned to Gangtok. A guard of 75 rifles was left at Tangu with instructions to visit Giaogong weekly.

In the meantime a new factor had been introduced into the situation.

**Russian intrigue in Tibet.** It became apparent that Russia was taking an increasing interest in Tibetan affairs, and that in 1901 a certain Asiatic Russian subject, Dorjief by name, attended by a suite of Tibetans, was officially received in audience by the Czar as "Envoy Extraordinary of the Dalai Lama of Tibet." In 1899 the Chinese Amban had spoken of the Tibetans falling back "on the support of the Russians, who had already offered them assistance," and some time later the arrival in Lhasa of a large consignment of rifles from the north was reported. The natural outcome of these events was that our negotiations with Tibet were very seriously affected. Such was the situation when, in February, 1903, the Government of India announced that "circumstances have recently occurred which throw upon us the obligation of placing our relations with the Government of Lhasa on a more satisfactory footing."

In June, 1903, the Viceroy of India accepted the invitation of the Chinese Amban to a conference on the subject of frontier matters. Major Younghusband and Mr. White were deputed as the British Commissioners, and Khamba Jong the nearest inhabited place on the Tibetan side of the disputed frontier, was named as the meeting place. The Maharaj Kumar of Sikkim accompanied the Commissioners, who were escorted by 200 men of the 32nd Pioneers and supported by 300 more at Tangu. From the outset negotiations were impossible. The Chinese Commissioners were uninfluential and of inferior rank; the Tibetans were unapproachable. Representations to China produced no effect, and in November the Government of India ordered that the Chumbi Valley should be occupied and negotiations resumed at Gyantse.

Meanwhile, it had been decided to improve the communications in Sikkim

#### **Tibet Mission of 1904.**

32nd Pioneers.

23rd Pioneers.

2 Companies, 10th Jats.

1 Company, 2nd Sappers and Miners.

towards the Chumbi Valley, and the marginally noted troops were sent up at different times during 1903 and set to work on the roads. Colonel J. R. Macdonald was placed in command with the temporary rank of Brigadier-General. On the 9th November the mobilisa-

tion of additional troops was ordered, and the strength of the Mission Escort



was made up to 3,000 men by the arrival of the units mentioned in the margin. The Head-Quarters reached Gnatong on December 7th. By that time the Tibetans had collected a considerable number of troops to watch the Mission at Khamba Jong, and every effort was made to encourage them in the idea that our main advance was to be made from that point. Thus when the Mission withdrew into Sikkim simultaneously with the main advance into the Chumbi Valley,

2 guns, No. 7 Mountain Battery.  
2 7-pr. R. M. L. guns.  
2 maxim guns.  
1 Company, 1st Sappers and Miners.  
8th Gurkha Rifles.  
Field Hospital.

it appears that a number of the enemy's levies, seeing the former movement and not knowing of the latter, returned to their homes and could not be again collected in time to resist the advance up the Chumbi Valley. The Mission

Escort crossed the Jelap La in separate bodies, and Chumbi was occupied on De-

cember 15th, a flying column of 800 men being pushed on to seize Phari Jong. This was accomplished on the 20th, and the Chumbi Valley secured thereby. To maintain the force and provide for a future advance large supplies were collected at Phari, and the forwarding of them over the Sikkim passes in mid-winter was a matter of the greatest difficulty. Meantime the Mission was located at Tuna under the escort of 4 companies, 23rd Pioneers, one 7-pr. gun, and some mounted infantry, who formed a protection against the 2,000 or 3,000 Tibetans assembled at Guru.

The preparations for the advance were completed by the 24th of March, and on that day the Mission Escort began its advance from Chumbi. The Tibetans were reported to have 3,000 men at Guru, guarding the Gyantse road; 2,000 at Hram guarding the Lhasa road; and 2,000 in reserve.

The column was concentrated at Tuna on March 29th. Two days later the Tibetans commenced hostilities at Guru. A column moved out of Tuna on

March 31st with the object of establishing a supply depot at Guru, preparatory to a general advance. The Tibetans were encountered occupying some *sangars* on a rocky ridge west of the Bam Tso, with a wall, easily outflanked, on the flat. As it appeared that the Tibetans intended to defend their position, the troops moved forward in attack formation, but orders had been issued that every endeavour was to be made to persuade the Tibetans to leave their defences, and that not a shot was to be fired unless attacked. The Tibetans gave up their *sangars* readily enough; their occupants joined the defenders of the wall on the flat. With the evacuation of the *sangars*, it was assumed that all danger of hostilities was at an end. The Tibetans behind the walls were accordingly informed that they must either retire or give up their arms, and, as they showed no intention of doing either, an attempt was made to disarm them. In the scuffle that ensued, the Lhasa *De-pön* exhorted his men to resist, and presently fired his pistol in the face of a sepoy. The hand-to-hand encounter which followed was of brief duration; a magazine fire was opened on the mass of Tibetans, who, surrounded on three sides, fell into the greatest confusion and beat a hasty retreat, leaving behind them many dead and wounded. Some of them made a stand at Guru village, but their position was shelled and carried by assault, while the mounted infantry continued the pursuit for ten miles further. The Tibetan casualties in this action were 628 killed and wounded on the field, and 222 prisoners.\*

\* A tabulated statement of casualties on the British side will be found on page 110.



The forward movement was resumed on April 4th, and no serious opposition was encountered until the Tibetans were found in position in the Lamdang gorge, where an action ensued which lasted eight hours. The Tibetans fought fanatically at close quarters, but the British advance was continuous and the enemy suffered severely. Once through the gorge, the mounted infantry took up the pursuit and carried it for some miles. The Tibetan casualties amounted to some 500 killed, wounded, and prisoners.

Next day the British reached Gyantse and the fort was handed over without opposition. The water-supply of the *Jong* being external and the perimeter

being considered inconveniently large, the hamlet of Chang-lo, about 1,500 yards from the *Jong*, was selected for occupation by the Mission. Chang-lo is a large walled enclosure, which was subsequently loop-holed and provided with *abattis*. Here the Mission was established, protected by the marginally

6 companies, Infantry.  
Two 7-pr. guns.  
50 mounted infantry.  
2 maxim guns.

noted escort, while the main body returned to Chumbi, leaving one company at Kangmar and one company at Kala Tso. This ended the first phase of the operations.

All went smoothly at Gyantse for two or three weeks, but at the end of April information was received that the

#### Action at the Karo La.

Tibetans were gathering at the Karo La, forty-six miles distant, on the Lhasa road. There is a short cut to Kangmar from this place, so that the presence of this force threatened the Gyantse communications. A party of mounted infantry were accordingly sent to reconnoitre, and found a strong *sangared* position three miles beyond the Karo La. No enemy were visible, but, on the approach of the party, the Tibetans opened a sudden fire without inflicting any casualties. On the 3rd May a force comprising 5 companies of infantry, two maxims, two 7-pounders and 50 mounted infantry, moved out of Gyantse and attacked the Tibetans in position. They held the entrance to a gorge, flanked by precipitous mountains, which they had closed by a wall 600 yards long and strengthened by *sangars* on the hill-sides. The issue was for a short time doubtful. The frontal attack received a check at 500 yards, and meanwhile the flanking movements were not making great progress. The gun and maxim fire did not touch the enemy in their entrenchments, and the infantry had to advance over grassy slopes devoid of cover. Finally, however, the flanking parties secured the extreme flank *sangars*, and, after four hours fighting, the Tibetans withdrew, pursued for ten miles by the mounted infantry. Their numbers were estimated at 3,000, and their casualties amounted to about 450. The engagement was fought at an altitude of 16,000 feet in a cutting wind.

During the absence of this force from Gyantse, the Mission escort was reduced to 160 rifles, and the Tibetans,

#### Attack on the Mission at Chang-lo.

taking advantage of this opportunity, moved up 1,600 men from Shigatse, reoccupied the *Jong* and assaulted the post at dawn on May 4th. The attacking force numbered 800, and a few succeeded in penetrating into the enclosure; but they were soon driven out and the assault was repulsed with a loss of 250 killed and wounded.



On May 9th the force which had fought the action at the Karo La returned to Gyantse. Reinforcements of 160 rifles and two guns also arrived, and several minor encounters took place, such as the assault of a house, afterwards known as the Gurkha post, 600 yards from the enclosure; the capture of Tagu village; and the assault and occupation of Phalla, where the Tibetans offered a stubborn resistance for eleven hours. These minor encounters so occupied the Tibetans that they made no attempt on our communications till the 7th of June, when they attacked Kangmar in considerable strength, but were easily beaten off by the garrison of 200 men. In all these actions the Tibetan losses were heavy.

During the month of May supplies were being accumulated at various points on the lines of communication preparatory to a further advance. The situation had now changed. The attack on the Mission at Gyantse, directed by Lhasa officials and known to the Chinese General Ma, the murders of Mission servants, and the practical investment of Chang-lo, had convinced the authorities that vigorous action was necessary. Reinforcements were accordingly sent to General Macdonald consisting of 4 companies each of the Royal Fusiliers and 40th Pathans, and eight mountain guns; and the Tibetans were informed that if representatives did not arrive at Gyantse to treat by the 25th June, the Mission would advance to Lhasa.

The main body, strength 8 guns, 125 mounted infantry, 2,950 infantry, 2,150 followers, and 4,000 animals moved forward from Chumbi on the 12th June. **Engagement at Niani.** The Tibetans had by this time concentrated some 16,000 fighting men, together with some thirty *jingals* and 800 breech-loading rifles, besides match locks. Their force was distributed in strongly fortified positions as follows:—At Gyantse, 8,000; at Niani, 800; at Niru, 800; at Gobshi, 1,000; at Tsechen, 1,200; at Dongtse, 2,500; and moving up from Lhasa, 1,500. On the advance of the British force the Tibetans at Niru hastily withdrew to Niani, and there fortified a position. On the 26th June Niani was attacked, and after some severe hand-to-hand fighting the enemy were compelled to withdraw. The British column continued its march and reached Gyantse on June 16th, where they encamped about a mile south-east of the Mission post.

General Macdonald immediately proceeded to clear the Gyantse valley of the enemy, by which the communications of the *Jong* with Shigatse were cut and the valley opened up to foraging parties. Operations began before dawn on the 28th. Four companies of infantry were sent down the right bank of the Nyang Chu to occupy the attention of the defenders of Gyantse, while the main body operated on the left bank. The Tibetans were found in two or three villages a few miles from the *Jong*, one of which, Gobshi, they held in some strength. The artillery opened upon them, and this fire was so demoralising that the Tibetans withdrew, and joined the garrison of Tsechen monastery. This, with its attendant village, forms a very strong position at the northern end of an extremely steep, isolated hill, the crest of which, crowned with two forts and several *sangars*, was strongly held. The Tibetans held their ground until driven out at the point of the bayonet, in spite of a heavy shell, rifle, and maxim fire; they also defended a large tower in the monastery until the gates were blown in.



These two decisive actions demoralised the Tibetans, who now sent in a flag of truce. Futile negotiations followed, and hostilities were suspended until noon

#### Assault of Gyantse *Jong*.

on the 5th July, when a demonstration was made against the north-west face of the enemy's stronghold in Gyantse, the Pal-kor Cho-de monastery. The troops occupied some houses at the foot of the hill and held them until dark, when they withdrew, leaving fires burning. At midnight on the 5th the troops for the real attack moved off. They were in position at 3-30 A.M., formed up in three columns, each consisting of a party of Sappers with explosives, a company of Infantry, and a company of Pioneers, with a reserve of two companies. The Tibetans, subsequently estimated at 6,000, occupied the whole town, *Jong*, and monastery. They had fortified their position on every side, existing walls were all loop-holed, and occupied by a continuous wall, and strong *sangars* had been erected. The roofs of the houses in the *Jong* and town were provided with head-cover made of bags of wool. The sky was clear and the moon-light disclosed the attack to the Tibetans, who opened fire a few minutes before 4 o'clock at about 300 yards range. The columns pressed forward, doors and walls being blown in, and a lodgement was effected at all three points before dawn. As soon as it was light, the troops were able to find their way through the intricate mass of houses, and by 8 A.M. the whole town to its south-west corner, was taken. Meanwhile, at day-break the artillery posted on Gun Hill and Phella opened a fire on the *Jong*, and the infantry replied to the heavy fire opened from the walls and *sangars*. At 2 P.M. the fire had slackened and an assault on the *Jong* was ordered. By 3-30 P.M. the guns had made a practicable breach in a weak spot at the eastern corner of the *Jong*, and, under a heavy musketry fire and showers of stones, the infantry carried out the assault. Clambering through the breach one at a time, the 8th Gurkhas, supported by a company of the Royal Fusiliers, took possession of a tower close by; and the Tibetans, offering no further organised resistance, at once began to retire to the monastery and western part of the town. By 6 P.M. the British troops were masters of the *Jong*.

The Tibetans still maintained a fire from the monastery, and preparations were accordingly made to take it next day. On the morning of the 7th, however, it was ascertained that the garrison had evacuated the place and withdrawn from Gyantse.

After the capture of Gyantse *Jong* and the retreat of the Tibetans, supplies

#### Advance to Lhasa.

200 mounted infantry.  
1,900 infantry and sappers.  
8 guns.  
6 maxims.  
2,000 followers.  
3,900 animals.  
23 days' rations.

were collected from the Gyantse valley and the marginally named column was got ready to escort the Mission to Lhasa. The advance began on the 10th July. At the Karo La some slight resistance was encountered, but Nagartse *Jong* and Pede *Jong* were undefended, and the force reached the Tsang-po on the 24th. The mounted infantry had captured two

large native boats, and with these and the Berthon boats carried by the column the crossing of the river was effected in seven days.

Lhasa was reached without incident on the 7th August. The town was not defended, and beyond some small skirmishes which cleared the Tibetans from the neighbourhood of the capital, and a demonstration against the



Debung monastery which at first refused to furnish supplies, no other military operations took place.

Many reasons for the uncompromising attitude of the Tibetans had now been ascertained. Besides their original belief in their own invincible and sacred persons, they had also been sustained by the presence of the Buriat, Dorjief, in their midst. This individual appears to have acquired a great ascendancy over the Dalai Lama. He had made him most extravagant promises of Russian support, which were corroborated in the minds of the people by the arrival of arms from the north. Shortly after the arrival of the Mission, he departed northward in company with the Dalai Lama.

At first the negotiations made no progress. Everyone fearing his neighbour and all the absent Dalai Lama, there was none to take the lead in the *Tsongdu*.  
**Negotiations at Lhasa.** Eventually, however, the head of the Gan-den monastery (the *Ti Rimpoche*) was recognised as regent by the *Tsongdu*, and, on Colonel Younghusband threatening an immediate resumption of hostilities, a treaty was signed on the 7th September (see appendix) by the British Commissioner, the Regent, the *Shap-pes*, and the representative of the monasteries. Soon after the conclusion of the treaty the Mission withdrew to India, leaving only a force in occupation of the Chumbi Valley and a British trade agent with an escort at Gyantse.

Meanwhile the Dalai Lama pursued his journey to the north, and eventually reached Urga. He returned to Lhasa in December 1909 from Peking, where he was in 1908 received in audience by the Emperor of China. It appears that the relations between the Dalai Lama and the Taranath Lama of Urga were by no means cordial. The common people of Lhasa, too, seem to have lost some of their former veneration for the Dalai Lama; that they still fear him, however, is shown by the fact that when the Amban denounced him to Peking as the source of the troubles of 1904 and posted a proclamation in Lhasa deposing him, the latter was torn down by the infuriated populace.

Ever since Europeans crossed the Himalaya the authorities at Shigatse have been better disposed to visitors than have those at Lhasa. This seems to have kept the Tashi Lama under the suspicion of the Dalai Lama, and between Shigatse and Lhasa the relations have not always been cordial. In 1905 the Tashi Lama accepted the invitation of the Government of India to visit the Prince of Wales, then touring in India. He was present at a large review at Rawal Pindi, was twice received by His Royal Highness, and visited several places held holy by Buddhists. His visit was purely of a ceremonial character, and the Chinese Government were given assurances to this effect.

The following tables contain a statement of the total force employed with the Tibet Mission, an abstract of casualties on the British side, and an abstract of expenditure of ammunition:—

**TOTAL FORCE EMPLOYED WITH THE TIBET MISSION, 1903-04.**  
 No. 7 Mountain Battery, Royal Garrison Artillery, 10-pr. guns,  
 1 section, No. 30 Mountain Battery, 7-pr. 200-lb. guns,  
 1 section, No. 27 Mountain Battery, 10-pr. guns,  
 2 7-pr. R. M. L. guns, Gurkha detachments,



Maxim Gun Section, 1st Battalion, Norfolk Regiment.  
Maxim Gun Section, 1st Battalion, Royal Irish Rifles.  
1st Company, Mounted Infantry.  
2nd Company, Mounted Infantry.  
3rd Company, Mounted Infantry.  
4 Companies, 1st Battalion, Royal Fusiliers.  
23rd Sikh Pioneers, with maxim guns.  
32nd Sikh Pioneers, with maxim guns.  
19th Punjabis.  
40th Pathans.  
8th Gurkha Rifles.  
Maxim Gun Section, 9th Gurkha Rifles.  
No. 3 Company, 1st Sappers and Miners.  
No. 12 Company, 2nd Sappers and Miners.  
13 Sections, Field Hospital.  
1 Base Hospital.  
10,000 Transport drivers.  
8,000 Supply and Transport coolies.  
10,500 mules and ponies.  
400 donkeys.  
9,225 bullocks and yaks.  
230 British officers.

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# Abstract of Casualties.

Date.	Place.	Nature.	KILLED.					WOUNDED.					Total.	Percentage of loss to fighting men engaged.
			British officers.	British Rank and File.	Native officers.	Native Rank and File.	Followers.	British officers.	British Rank and File.	Native officers.	Native Rank and File.	Followers.		
7th January 1904	Phari	Fracas	..	..	..	..	..	1	..	..	1	1	3	
31st March 1904	Guru	Action	..	..	..	..	..	1	..	..	1	1	3	
7th April 1904	Guru	Explosion	..	..	1	4	..	1	..	..	..	..	13	1.25 per cent.
10th April 1904	Lamdang	Engagement	..	..	..	..	..	..	..	1	..	4	12	
15th April 1904	Gyantse	Explosion	..	..	..	..	..	..	..	..	..	..	3	
5th May 1904	Gyantse	Defence of Post	..	..	..	..	..	1	..	..	13	..	14	
6th May 1904	Karo La	Action	1	..	..	..	1	..	..	..	4	1	6	2.25 per cent.
12th May 1904	Gyantse	Jong fire	..	..	..	4	..	..	..	..	13	..	18	5.00 per cent.
19th May 1904	Gyantse	Sortie	..	..	..	..	1	..	..	..	1	..	2	
19th May 1904	Gyantse	Defence of Malls	..	..	..	1	..	..	..	..	3	..	3	1.50 per cent.
19th May 1904	Gyantse	Jong fire	..	..	..	..	..	..	..	..	..	..	3	
20th May 1904	Gyantse	Capture of Tagu	..	..	..	2	..	..	..	..	1	..	1	
26th May 1904	Gyantse	Capture of Thalla	1	..	..	..	..	1	..	..	3	..	6	2.00 per cent.
4th June 1904	Gyantse	Jong fire	..	..	..	3	..	3	..	..	9	..	16	3.70 per cent.
5th June 1904	Gyantse	Jong fire	..	..	..	..	..	..	..	..	1	..	1	
7th June 1904	Kangmar	Defence of Post	..	..	..	1	1	..	..	..	1	..	1	
8th June 1904	Gyantse	Jong fire	..	..	..	1	..	..	..	..	6	..	8	3.80 per cent.
9th June 1904	Gyantse	Jong fire	..	..	..	..	..	..	..	..	..	..	1	
25th June 1904	Niani	Skirmish	..	..	..	..	..	..	..	..	2	..	2	
26th June 1904	Niani	Action	..	..	..	..	..	..	..	..	1	..	1	
28th June 1904	Tsechen	Action	1	..	..	5	..	1	..	1	9	..	16	
5th July 1904	Gyantse	Demonstration	..	..	..	..	..	..	..	..	7	..	8	
6th July 1904	Gyantse	Capture of Jong	1	..	..	3	..	7	3	1	1	..	1	
7th July 1904	Gyantse	Explosion	..	..	..	..	..	..	..	..	22	..	37	2.30 per cent.
12th July 1904	Gyantse	Demolition	..	..	..	..	..	8	..	..	..	..	8	
18th July 1904	Karo La	Engagement	..	..	..	..	..	..	..	..	..	5	5	
25th July 1904	Chaksam	Crossing river	1	..	..	1	..	..	..	..	2	..	3	
18th August 1904	Lhasa	Attack by Fanatic	..	..	..	3	..	..	..	..	..	..	4	
20th August 1904	Chaksam	Crossing river	..	..	..	..	..	2	..	..	..	..	2	
			5	..	1	28	3	19	11	4	116	15	202	



*Abstract of Expenditure of Ammunition.*

Action.]	Shell.			• 303								
	No. 7 Mountain Battery.	No. 30 Mountain Battery.	8th Gurkhas.	Royal Fusiliers.	1st Sappers and Miners.	1st Mounted Infantry.	2nd Mounted Infantry.	23rd Pioneers.	32nd Pioneers.	40th Pathans.	8th Gurkhas.	Maxims, Norfolk Regiment.
Gurt . . . .	39	..	20	..	..	2,413	1,524	2,362	3,669	..	3,390	952
Zamdang . . .	21	..	..	..	..	2,360	825	37	1,900	..	789	..
Gyantse, 5th May 1904	..	..	..	..	..	293	..	..	2,170	..	1,647	..
Karo La . . .	..	..	60	..	..	1,460	..	..	9,518	..	..	5,004
Niani . . . .	31	74	..	..	..	..	1,352	3,871	1,240	5,936	504	..
Tse-chen . . .	132	12	52	2,118	346	2,354	..	1,278	1,723	4,243	2,435	..
Gyantse (Capture of Jong)	400	141	214	11,146	..	..	160	11,958	5,679	19,072	5,748	..



In 1905 some serious disturbances occurred on the eastern borders of Tibet. It appears that the Chinese Government, with the object of opening up the semi-independent regions of Eastern Tibet and Western Ssu-chuan to agriculture and colonisation, appointed a certain Feng Tugen as Assistant Resident at Chiamdo, with instructions to adopt whatever measures he might think fit for the furtherance of the object in view. Among other measures the commencement of gold-mining operations at Tai-ling (a village of the Mantzu State of Kestha, a few miles north of Ta-tsien-lu) was ordered, and this interference in what the Tibetans considered to be solely their own affair, seems instantly to have aroused the indignation of the people of the neighbourhood. They threatened to resort to violence if any attempt was made by the Chinese to tamper with the gold-fields. In March the Viceroy of Ssu-chuan received intimation of a disturbance at the mines, and the Chinese General Ma, the local Commander-in-Chief, was ordered to proceed in person to Ta-tsien-lu with a battalion of infantry and a complement of mountain guns. At the same time the robbery of a French priest gave rise to an outbreak at Litang, and a dispute between the Lamas of Batang and certain of Feng Tugen's officials resulted in some loss of life at that place. Some high-handed measures of Feng Tugen resulted in the Lamas attacking his residence at Batang and the massacre of a number of Christian converts. Feng Tugen contrived to escape towards Ta-tsien-lu, but he was overtaken, surrounded, and put to death with the whole of his Chinese escort by a party of Tibetans a thousand strong. Emissaries were then sent to all the lamaseries of the district, with invitations to rise against the Chinese; and it was not long before the movement had spread some way southwards into Yun-nan.

At the end of April the Viceroy of Ssu-chuan ordered an additional 1,500 men to be sent to the support of General Ma, who had in the meantime arrived at Ta-tsien-lu. In May it was reported that the number of the rebels had reached 10,000; of whom 5,000 were at Batang, 3,000 at Atuntse, and the remainder at Yerkalo and Yarrangong. At Atuntse they raided the town and killed many Chinese; at Yarrangong they wrecked the mission and threw the body of a French priest into the river. Between fifty and a hundred Christian converts were massacred, some of them being subjected to the most brutal torture. At Yerkalo the rebels found the mission post deserted, but laid waste the town.

A small Chinese force was despatched to Atuntse as soon as news of the disaster was received, but though they succeeded in re-taking the town and capturing one of the Tibetan ring-leaders, they failed to follow up their success, thus enabling the Lamas to reorganise their forces. Greatly augmented in strength, the latter returned to Atuntse, laid siege to the town, and cut its communications towards the south. The garrison resisted till the middle of July, but surrendered on the 18th. A period of pillage and massacre ensued, after which the Lamas advanced on Tse-kou, a large village between Atuntse and Wei-hsi. The Roman Catholic missionaries at that place, together with an Englishman named Forrest, fled towards the south, but were met by the rebels, and only the Englishman reached Wei-hsi alive.

By this time the Chinese Government had matured its plans for the pacification of the country, and troops converged upon the disaffected area in three separate columns,—one from Sungpan in the north, one (under General Ma)

**Disturbances in Eastern Tibet.**  
**Murder of Feng Tugen.**  
**Siege and capture of Atuntse.**  
**The Chinese assume the offensive.**



from Cheng-tu in the east, and the third from Wei-hsi in the south. The total strength of these three columns did not amount to more than 7,500 men, the majority of whom were an ill-organised rabble, picked up and hastily trained on the line of march.

General Ma advanced on Litang and captured it after some unimportant fighting. In August he was joined by the Sung-pan column from the north, and pushed on to Batang, where he gained a decisive victory over the rebels, destroying the monasteries and putting to death the ring-leaders of the insurrection. So successful was General Ma in his operations and so vindictive were his punitive measures, that the districts through which he passed were thrown into a state of panic, and numbers of rebels turned against their leaders.

The southern force did not move till the beginning of September, when they carried out a "drive" from Wei-hsi in the direction of Atuntse, operating in three columns. The enemy were encountered in considerable force at the fortified monastery of Tung-chu-lin, and it was found necessary to reunite the three columns before attempting to attack the position. The place was taken on October 4th, when the whole of the Tibetan garrison is said to have perished, having fought with almost fanatical bravery to the end. A column was subsequently despatched across the Yangtse, and with the subjugation of this district, the regular operations came to an end, a further advance to Batang being considered unnecessary in view of General Ma's successes.

No sooner were the operations over, than the Chinese commenced to bring the disaffected area under proper administrative control. An official named Chao erh Feng was appointed "Imperial Commissioner of the Frontier," and the original schemes for the agriculture and colonisation of Eastern Tibet were immediately proceeded with. The scheme of administrative reform included the establishment of important military depôts at Litang, Lamaya (at the junction of the Batang and Hsian-Cheng roads), and Batang. To this the Tibetan Government could raise no feasible objection, as these posts are nominally under the immediate jurisdiction of Ssu-chuan; but when Chinese troops crossed the frontier and proceeded southwards towards Mar-kham and Tra-ya with the avowed intention of subduing those and other semi-independent States of Eastern Tibet, the Lhasa Government requested the Amban to take immediate steps for their withdrawal. Protracted negotiations ensued, and the Te-ling Depon was deputed to proceed eastward to remonstrate with the Chinese officer in command and to arrive at some mutual understanding in the matter. Latest reports are to the effect that small bodies of Chinese troops are still quartered in Kham (and, it is said, have in some cases usurped the powers of the local Tibetan officials), but the majority have withdrawn across the border.



## CHAPTER VIII.

### ADMINISTRATION.

#### THE DALAI LAMA.

The supreme head of the Tibetan Government is the Dalai Lama. He is regarded by the Tibetans as the incarnation of the *Bodisat* (i.e., one who has attained *Nirvana*, but consents to be reborn for the benefit of his fellow-creatures) *Avalokita*, and exercises supreme power in civil as well as in religious affairs.

When a Dalai Lama dies (or, as the Tibetan says, "retires to the heavenly fields"), the mode of selecting his successor is as follows:—The Tibetan Government (*De-pa Shung*) enquires as to certain particulars which may enable the new Dalai Lama to be traced. These enquiries are made from the *Nechung Chokyong* (the chief oracle in Tibet and situated near Lhasa), from the Tashi Lama, from the Professor of divinity (*Gan-den Rim-poche*) at the large Gan-den Monastery near Lhasa, from the head of the Sakya Monastery in the Tsang Province, and from a few others of the highest Lamas of the land. The replies give certain indication of the tract of country in which the new Dalai Lama will be found, the year of birth of his father, his mother, and himself, the kinds of trees growing near his house, and so forth. Enquiries in the district indicated are then set on foot, and three or four children, whose birth has been heralded by heavenly manifestations, such as the appearance of a rainbow in a clear sky at the time of birth, are trained. Particulars of these miraculous births are laid before the *Nechung Cho-kyong* and the leading Lamas, who decide which is the real reincarnation of the departed Dalai Lama. The new Dalai Lama has to recognise the sacred thunder-bolt (*dor-je*), bell, and other religious implements of his predecessor, a task which apparently is not attended with much difficulty. A report has then to be made to the Emperor of China, who orders the name of the new Dalai Lama and that of another to be placed in a golden vessel. The latter is shaken by the Amban, and the name coming out first is that of the new reincarnation; it is said to be invariably that selected by the *Nechung* and the Lamas. In the case of the present incumbent, it was represented to the Emperor that there was no shadow of doubt as to the identity, and the ceremony was accordingly remitted.\*

When about seven years old, the Dalai Lama is brought to Lhasa and takes up his residence in the Po-ta-la; at the age of eighteen he is entitled to receive his full powers. It is a noteworthy fact that the reincarnation is nearly always found in the family of a humble peasant; the object of this is no doubt to prevent undue power being accumulated in the hands of one family. The present *Lha-lu* family is descended from both the 11th and 12th reincarnations, but each took place in a peasant's family, the two families having combined subsequent to the discovery of the 12th Dalai Lama. The

\* The abandonment by China of the name-shaking ceremony on this occasion was said to be indicative of the growing impatience felt by Tibet towards the Chinese suzerainty and the steady decline of the latter.



father of a Dalai Lama receives the rank of *Kung*, the Ruby Button, and the Double-Eyed Peacock Feather (see below), and so ranks among the highest nobility of the land.

The title Dalai Lama (or more properly *Ta-le* Lama) is of Mongolian origin, meaning "Vast as the ocean,"

**Titles of the Dalai Lama.** and as a rule is used only by Chinese and Mongolians. To the Tibetans he is known as *Kyam-gon Rim-po-ch'e* ("the Precious Protector"), as *Gya-wa Rim-po-che* ("the Precious Sovereign"), as *Buk* Lama ("the Inmost Lama"), or as *Kyam-gon Buk* ("the Inmost Protector"). The present Dalai Lama, whose name is Ngaw-ang Lob-sang Tup-den Gyatso, was born in Tak-po, to the south-east of Lhasa, his parents being common peasants.

#### Seals of Office.

The Dalai Lama has several seals of office, of which the two most important are as follows:—

- (a) "The Golden Seal of Heaven (lit. rainbow) and Earth" (*Ja-sa Se-tam*). This bears on it the name of the Emperor of China who ruled at the time of the 5th Dalai Lama; it is a red, square seal, each side being about one inch long. It is kept in the personal custody of the Dalai Lama and is the symbol of his power and authority in Tibet. It is not stamped on documents now-a-days, but is found on some of the more ancient title-deeds of the old families of Tibet.
- (b) "The Inmost Seal" (*Buk-tam*). This bears the word *Gan-den Po-trang*, i.e., Gan-den Palace and Dalai Lama. It is a red, square seal, a little larger than the *Ja-sa Se-tam*, and is applied to the title-deeds of large properties and to other important written orders issued by the Dalai Lama himself.

In matters of foreign policy the Dalai Lama acts in conjunction with the Council and the National Assembly (see page 118).\*

#### Extent of his authority.

An appeal lies to the Dalai Lama against the decision of the Council in cases of great importance; in every murder case the decision has to be reported to the Dalai Lama for confirmation. Appeals, references, and reports of all kinds are, however, always submitted through some subordinate body, which is usually the Council; no petition or report is allowed to be addressed directly to the Dalai Lama. This forms one of the main checks on his power and in theory is almost unlimited, since it is thus possible for the Council, the National Assembly, and the Ecclesiastical Court (see below) to keep him in ignorance of matters regarding which they fear adverse orders. It appears, for instance, that the Dalai Lama was kept in ignorance of the extent of the British advance into Tibet in 1904 until the Mission had penetrated as far as Gyantse.

**The present Dalai Lama's family.** The family of the present Dalai Lama is as follows:—

- (a) Yap-shi Kung, an elder brother;
- (b) a younger brother, who is his *Sim-pon Chem-po* (see below);
- (c) an unmarried sister, named De-Kyi. The family originally consisted of five brothers and this one sister.

\* All references to the authority of the Dalai Lama contained in this chapter must be considered to refer to his authority under normal conditions.



The brothers of the Dalai Lama are not allowed to hold Government posts during the Dalai Lama's lifetime on the ground that the family would thereby get too much power into their hands. The *Sim-pon Chem-po* is a private rather than a Government servant, but the position of the present incumbent as the brother of the Dalai Lama gives him considerable influence in affairs of State.

The officers of the Dalai Lama's household.      The officers of the Dalai Lama's household are as follows:—

- (a) *So-pon Chên-po*.—It is this officer's duty to lay the Dalai Lama's food before him, tasting some of it himself; he has also other miscellaneous duties in the Dalai Lama's private apartments. He is a priest official and is rated as being a little above ordinary officials of the 4th rank (see page 133).
- (b) *Sim-pon Chem-po*.—This priest official is the superintendent of the servants who look after the Dalai Lama's private apartments; his duties and rank are generally similar to those of the *So-pon Chên-po*.
- (c) *Cho-pon Chem-po*.—This officer is in charge of the presentation of food-offerings to the gods on behalf of the Dalai Lama. He also assists the two officials mentioned above in all matters relating to the private apartments, and these three are the head body-servants in attendance on the Dalai Lama. He is a priest official and ranks equally with them, the three being known collectively as *So-sem Cho-sum*.
- (d) *Dro-nyer Chem-po*.—This priest official of the 4th rank is an intermediary between the Dalai Lama and those who desire audience with him; he has eight assistants under him, and is said to derive a large income from the petitioners who interview him.
- (e) *So-tap-pa*.—These priest officials, of whom there are eight, are the cooks; one who is at their head holds 5th rank, the remainder the 6th rank. Their chief earnings are said to be derived from the sale of the surplus food provided for the Dalai Lama's establishment.
- (f) *Chap-sok-pa*.—The duties of these eight priest officials, whose rank is similar to that of the *So-tap-pa*, is to look after the Dalai Lama's water for drinking, bathing, etc.
- (g) *Sim-kap-pa*.—These four officials of the 6th rank work as orderlies at the entrance to the Dalai Lama's apartments. They also ride in front of the Dalai Lama's sedan chair, carrying with them whips to clear the way, and are always men of great stature and strength.

The officials (a) to (g) inclusive all live in the Po-ta-la.

- (h) *Chik-pon Chem-po*.—These lay officials of the 6th rank are the Superintendents of the Government Stables, and also look after the work of the Government mounted couriers (*a-trung*).
- (i) *U-du Kem-po*.—This official carries the yellow silk umbrella (*u-du*) in front of the Dalai Lama when the latter rides abroad.
- (j) *Pep-chang Go-pa*.—These two officials are laymen of the 5th rank; it is their duty to look after the bearers of the Dalai Lama's sedan chair and to accompany the chair when carried.
- (k) *Kar-pon*.—This official is a layman of the 6th rank; it is his duty to look after the dancers and musicians who perform before the Dalai Lama at the New Year and other important ceremonies.



The officials (*h*) to (*k*) inclusive live at the foot of the Po-ta-la.

- (*l*) *Tse Kang-nyer*.—This priest official of the 6th rank is in charge of the buildings and furniture of the Po-ta-la, and himself resides in the Palace.
- (*m*) *Nor-pu-ling Kang-nyer*.—This priest official of the 6th rank is in charge of the buildings and furniture of the Nor-pu-ling, the Dalai Lama's summer residence, where he himself resides.
- (*n*) *Lhasa Kang-nyer*.—This priest official of the 6th rank lives at the Cho-kang, the principal temple in Lhasa, where he is in charge of the apartments and furniture of the Dalai Lama.
- (*o*) *Dzo-mo-ra Tse-trung*.—These are priest officials of the 6th rank and reside at the foot of the Po-ta-la hill. They are in charge of the herds of cattle (mostly *dzo*) which belong to the Po-ta-la.
- (*p*) *So-men Kem-po*.—These are the two Court Physicians, both ecclesiastical officials; one holds the 4th rank, the other the 5th. They are not often called in by outsiders, as their fees are high and their reputation great.

The above comprises all Po-ta-la officials holding rank; below them are menial servants only. The pay of the officers of the household is small, but they have ample opportunities of supplementing it considerably by bribes, etc. This is the system in force throughout Tibet among all persons endowed with any form of authority.

#### THE REGENT.

During the minority of a Dalai Lama a Regent is selected to administer the country. He is generally chosen from among the head Lamas of the four *Lings* of Lhasa\* or from the Ra-trin or De-truk Monasteries; but if none of these six incarnate Lamas are considered suitable, it has been usual to appoint either the head *Gan-den Ti Rim-po-che* or the Spiritual Instructor (*Yong-dzin*) of the young Dalai Lama. There is only one recorded case during the last two hundred years of the office of Regent being filled by a layman. The Regent is known as *Po-Gyal-po*, or "King of Tibet."

#### THE COUNCIL.

Under the Dalai Lama comes the Council, which is known as the *Ka-sha*, this latter word being originally the name of their Council House. The Council consists of four members, three of whom are laymen; each Councillor is known as a *Shap-pe*, or by the more courteous titles of *Sa-wang* (Lord of the Land) and *Sa-wang Chem-po* ("Great Lord of the Land"). The priest member is also known as *Ka-lon Lama* ("the Priest Minister who issues the orders"). The Council has a general con-

**Powers.** trolling power over the internal administration of the country, whether in political, revenue, or judicial matters. It hears appeals from the decisions of various lay officials, but in important cases in which monks are involved the Council has no power, and such matters are referred to the Ecclesiastical Court (see page 119). In a matter of the first importance an appeal lies against the decision of the Council to the Dalai Lama. In political matters where foreign affairs are concerned the Dalai Lama, the Council, and the National Assembly act

\* The four *Lings* of Lhasa are the four Monasteries of Ten-gye Ling, Kun-de Ling, Tse-cho Ling, and Tso-mo Ling.



together, in which case the power of the Council is not very large. The Council also passes orders, subject to the approval of the Dalai Lama, re appointment and transfer of lay officials; in this department of their work they are said

**Pay of Shappes.** to derive a large independent income. Their nominal pay from the Government is only 30 *do-tse* each (Rs. 3,330) a year; this is often given in land (*ka-shi*) and such land usually yields much more than the cash payment. They also take in turns the profit from the sale of grass from the *Dom-ra Chem-po* meadow near Lhasa, which amounts to some Rs. 4,000 to Rs. 5,000 a year. But their chief source of income is derived from the bribes given by litigants and by officials applying for elevation in rank.

Under the *Shap-pes* work two clerks (*Ka-trung*), lay officials of the 6th rank, who draft the letters of the Council. There are four other clerks, also of the 6th rank, who do the work of *peshkar*, representing to the *Shap-pes* matters which suitors wish to bring before them. Suitors are not allowed to represent their cases direct to the *Shap-pes*, and this principle runs throughout Tibetan administration. Under these clerks come junior clerks (*Ka-sha Sho-pa*), who act as assistants to the *Ka-trung*, drafting and copying the less important letters. There are eight of these juniors; they are laymen of the 7th (*i.e.*, the lowest) rank.

#### THE NATIONAL COMMITTEE.

The National Committee (*Tson-du Du-pa*) is a committee made up of Generals (*De-pon*), Financial Secretaries (*Tis-pon*), Paymasters (*Po-pon*) and other officials of the 4th rank. The Committee is summoned by the Council, who send out a circular known as the "Arrow List" (*Da-to*) containing the names of those who are invited to attend and the date and hour of assembly, though the business of the meeting is not stated. It is held in the precincts of the *Cho-kang*, in a room known as the *Lha-brang-teng*. The work dealt with is such as the Council do not wish to dispose of without advice, and its nature appears to be fairly well defined by custom. At the commencement of the meeting two or three of the members go to the *Shap-pes'* Court, and there are informed of the subject, or subjects, to be discussed.

#### THE NATIONAL ASSEMBLY.

Should the Committee think that the matter is one beyond their power, a meeting of the National Assembly (*Tson-du Gyan-dzon*) is called. This is attended by all lay officials (*Trung-kor*) of the Central Government below the rank of *Shap-pe* and by all priest officials of the Central Government except the *Chi-yap Kempo* (see page 119). Other

**Composition.** smaller fry, such as the headmen among the State carpenters, tailors, etc., are allowed to attend, but not to speak beyond notifying their agreement in the proceedings. The abbots of the three Monasteries of Se-ra, Dre-pung, and Gan-den also attend. Where a Government member of the higher classes is unable to attend, a brother or other relation may present himself as substitute. In matters of special importance an official of the Tashi Lhunpo Government (see page 126) used

**Procedure.** to be summoned, but this privilege has lately been withdrawn. The National Assembly, like the *Du-pa*, is convoked by the Council, the "Arrow List" being sent out in about twenty copies, stating that there will be a meeting at such an hour on such a day. When the meeting has assembled, the abbots



of the Monasteries, a Grand Secretary, and a Financial Secretary are the persons who usually attend at the *Shap-pes'* office, find out what business is to be done, and open the assembly. In the discussion that follows the abbots of the Monasteries and the Financial Secretaries do most of the talking, the priests speaking more than the laymen. As each one concludes his speech, he asks the audience whether they agree with his views as to what should be done; those who agree reply in the affirmative, those who disagree remain silent. After the opinion prevailing in the Assembly has been obtained, one of the leading members puts it to the meeting, when it is carried, and the meeting disperses. The result is communicated to the *Shap-pes*, who submit it, together with their opinion, to the Dalai Lama. The Dalai Lama passes orders, paying attention to the views of the National Assembly rather than to those of the Council. The decisions of the National Assembly are notified by the seal of the Council and the seals of the three Monasteries of Se-ra, Dre-pung, and Gan-den.

The Dalai Lama, the Council, and the National Assembly may thus be said to constitute the Supreme Government of the country, and of these the National Assembly appears to be the controlling factor. The power of the Amban or even of the Chinese Emperor in either internal or external affairs is not sufficiently great to over-ride the authority of the Tibetan officials.

#### THE ECCLESIASTICAL COURT.

The Ecclesiastical Court (*Yik-tsang*) is the meeting place of the four Grand Secretaries (*Trung-yi Chem-po*), who are priest officials holding 4th rank. Their work is as follows:—

- (a) Appointments and transfers among the priest officials. Their Duties. report goes to the *Chi-kyap Kem-po*, and thence to the Dalai Lama, who passes orders.
- (b) Questions affecting priests, *e.g.*, quarrels among monks, subsidies to Monasteries, etc. If a question of importance affects a layman on the one side and a priest on the other, the Council decides the matter at issue, but a joint investigation is first held by both a priest official and a lay official.
- (c) All orders bearing the seal of the Dalai Lama are sent through the Ecclesiastical Court to their destinations.

The *Chi-kyap Kem-po*, to whom reference has already been made, is the

The *Chi-kyap Kem-po*. head of all the priest officials, and decides appeals or other important matters referred

by the Ecclesiastical Court. It is his duty to refer cases of the highest importance to the Dalai Lama, but, like the members of the Council, he is said sometimes to keep the Dalai Lama in ignorance of what is going on and so increase his own authority. The Ecclesiastical Court has the right of approaching the Dalai Lama direct, and can so curtail the power of the *Chi-kyap Kem-po* when exercised to their detriment. The *Chi-kyap Kem-po* lives in the Po-ta-la. He has control over the parks around Lhasa—complete control over the Government parks (*ling-ka*) as regards the felling of trees, etc., and limited control over the private parks as to keeping the water-supply pure and other public interests. He has other additional duties of a miscellaneous nature, and attends the Council whenever any matter of unusual importance is being discussed. He ranks with and



receives the same pay as, the *Shap-pes*, and is said to command a very large independent income.

#### THE FINANCE OFFICE.

The Finance Office (*Tsi-kang*) is presided over by three Financial Secretaries, who are laymen of the 4th rank. Their chief duties are as follows:—

- (a) To preside over the Government College attended by those youths who wish to serve as lay officials.

##### Duties.

These youths enter the College by entrance examination at ages varying from 14 to 20. Their progress is watched by the Financial Secretaries, and when a boy is thought fit for Government service, a Secretary examines him and sends his examination papers to the Council; the latter sends them on to the Dalai Lama, who passes formal orders for admission to Government service. Examinations are held twice a year, and as the time comes round, the parents of the boys make presents to each of the three Secretaries of 5 to 10 *ngu-sang* each.

- (b) To keep the accounts of the revenue and expenditure of the Government. They do not receive the revenue, which is remitted direct by the *Jong-pens* and collecting agencies to the different treasuries in Lhasa and to offices, factories, monasteries, etc.
- (c) To attend the meetings of the *Tson-du*, whether it be the *Du-pa* (Committee) or the *Gyan-dzon* (Assembly). The Financial Secretaries satisfy themselves that all those whose names are entered on the attendance list are present, and, together with the Grand Secretaries, they decide whether agreement has been arrived at.

The pay of each is 6 *do-tse* (Rs. 666) a year; their office is in Lhasa, near the Council House, and they are directly subordinate to the Council in their work.

##### Pay.

#### THE TREASURIES.

There are four Government Treasuries, viz., the *Lab-rang Chang-dzo*, the *Tre-de Chang-dzo*, the *Nam-se Ken-dzo*, and the *Po-kang*.

To the *Lab-rang Chang-dzo*, which is situated in Lhasa, are sent large amounts of the Government revenue in the form of cash, butter, tea, gold from the gold-mines of Kham and Western Tibet, silks, etc. sent by the Emperor of China in return for the tribute sent by the Tibetan Government to Peking, and other goods. Grain is not remitted to any of the Government Treasuries, but is stored in the various *Jongs* or granaries throughout the country, to be used or sold as occasion may require. In the *Lab-rang* Treasury are also kept numerous articles of State property in the form of corals, turquoises, etc. It is superintended by three Treasurers (*Chang-dzo-pa*), of whom one is a lay official, all three holding 4th rank. This Treasury also lends out money to persons who can provide two substantial securities. The usual rate of interest is 20 per cent., the profit going to the Treasury.

The pay of the *Chang-dzo-pa* of the *Lab-rang* Treasury is 6 *do-tse* (Rs. 666) a year, but their perquisites are said to be greater than those of any other 4th rank officials, since applicants for loans are willing to pay handsomely for



low rates of interest. It occasionally happens that a Treasury Officer will embezzle some of the goods committed to his charge, reporting them to have been stolen, but such conduct, though not essentially regarded as a crime, is held to fall within the pale of dishonesty and is seldom indulged in.

The *Tre-de Chang-dzo* is situated in the Po-ta-la, and may be termed the

**The *Tre-de Chang-dzo*.**

Dalai Lama's private Treasury. It is superintended by three *Chang-dzo-pa*—two priests and one layman—all of the 4th rank. Its chief income is as follows :—

- (a) those portions of the Government revenue which are reserved for this Treasury according to the revenue schedules. For instance, some of the oranges sent from Phari, and a portion of the gold from Western Tibet, are sent to the *Tre-de Chang-dzo*, though the larger portion of each goes to the *Lab-rang* Treasury ;
- (b) estates of its own, from which it receives the rent in money, grain, butter, etc., the grain being stored on the estates themselves as is done in the case of the *Lab-rang Chang-dzo*.
- (c) offerings of pilgrims to the Dalai Lama.

The Dalai Lama draws his requirements from the *Tre-de Chang-dzo*, e.g., silk for his clothes, silver or gold for a present or for buying a horse, etc., etc.

The *Nam-se Ken-dzo* ("the Treasury of the Sons of Heaven") is situated in the Po-ta-la; in it are stored gold,

**The *Nam-se Ken-dzo*.**

silver, corals, turquoises, diamonds, emeralds, silks, etc. These treasures are not expended on ordinary Government service, but are stored to meet the exigencies of a war or other exceptional occasions. The silver, however, is let out in large sums to persons who can produce two sureties with substantial landed property; the rate of interest is low because the security is always first class. The value of the goods in the *Nam-se Ken-dzo* is extremely large, and it is estimated that every year half a lakh of goods is stored in it, while the storing has gone on for hundreds of years. It is clear that the recent indemnity could have been paid several times over from the *Nam-se Ken-dzo* alone. Occasionally money is lent without interest; for instance, the son of the *Nam-se-ling* General who was killed in the action at Guru in 1904 has been given a loan of 60 *do-tse* (Rs. 6,660) free of interest for ten years.

In the *Po-kang* (or Paymasters' Treasury) is stored a large amount of

**The *Po-kang*.**

silver presented by a former Emperor of China a great many years ago. This is kept as capital, and is lent out to persons who can give two substantial securities, though neither borrower nor sureties need be landed proprietors. From the interest received the Tibetan regular army is paid. The *Po-kang* is in charge of the *Po-pons*, or Government Paymasters, whose duties will be referred to fully in Chapter IX.

#### OTHER OFFICIALS OF THE CENTRAL GOVERNMENT.\*

Of the other officials of the Central Government, the following deserve passing mention :—

*Tsam-she-pa*.—These are the two Government Store-keepers (lit. "Receivers of Barley Flour"), who hold 6th

*Tsam-she-pa*. rank, one being a priest, the other a layman. They have charge of the Government barley, barley-flour, wheat,

\* The term "Central Government" is used to discriminate between the Government at Lhasa and that of Tashi Lhunpo. The latter is described fully on page 126.



peas, meat, oil, and some silver. They issue their supplies on receiving an order from the Council or from the *Lab-rang Chang-dzo*. They are bound to meet indents whether they have the goods in store or not, and are generally put to loss, though they are as a rule rewarded after three years of office by being appointed to a profitable *Jong*. Their warehouse is in Lhasa, and it is in their office, in the upper storey, that information should be forthcoming regarding the available stores in the town.

*Lhasa Nyer-tsang-nga*.—These three officials—one priest and two laymen—are in charge of the Cathedral (*Cho-kang*)

*Lhasa Nyer-tsang-nga*. of Lhasa, and holds the 5th rank. The Cathedral servants work under them, and it is their duty to make a round of the building every evening to see that everything is in order.

*Tse-Nyer-tsang-nga*.—These three priest officials of the 5th rank are in charge of the various chapels in the

*Tse Nyer-tsang-nga*. Po-ta-la.

*Mi-pon*.—These are Police Magistrates and County Court Judges combined, trying the ordinary criminal and civil cases that arise in the town of Lhasa.

There are two of them and they decide the cases jointly: they are both lay officials of the 5th rank. If persons of high position are concerned in the cases either as plaintiff or defendant, the petition has to be referred to the Council for orders. The *Mi-pon* may decide serious criminal cases such as grievous hurt or theft of a large amount, and civil cases in which large amounts are involved, provided that neither of the parties is a monk or a Government officer of higher rank than a *Mi-pon*. The Court room of the *Mi-pon* is known as the *Le-kung*, and the building in which it is situated as the *Nang-tse-shar*. An appeal from the *Mi-pon* lies to the Council.

*Sho-pa*.—Of these 5th rank officials there are three, two laymen and one priest. They decide cases arising on the outskirts of Lhasa, and their power is similar to that of the *Mi-pon*. Their Court House is known as the *Sho Le-kung* and is situated at the foot of Po-ta-la hill.

*Sher-pang*.—These two lay officials of the 5th rank decide cases arising outside Lhasa which are referred to them by the Council, to whom they report their decision. Their Court House is known as the *Sher-kang*.

*Sher-pang*,

#### THE ECCLESIASTICAL COLLEGE.

For the training of those who wish to enter the Ecclesiastical side of Government service (*tse-trung*), a college known as the *Tse Lap-tra* is maintained. It is situated in the Po-ta-la, and is under the control of the *Ge-gen Chem-mo*, who is a priest official of the 4th rank. The boys enter the school at ages varying from 14 to 20 years, and pass through it in three or four years according to their ability, and the extent to which they are able to fee the four Grand Secretaries, who hold the same position as is held by the three Financial Secretaries in the college for candidates for the lay side of Government service. The school contains some 20 to 30 boys. As in the lay college, examinations are held twice in the year.



## SOURCES OF REVENUE.

The different offices, Council, *Tson-du*, *Yik-tsang*, *Tsi-kang*, *Lab-rang*, *Chang-dzo*, *Tre-de Chang-dzo*, *Tsam-she-pa*, *Lhasa Nyer-tsang-nga*, *Tse Nyer-tsang-nga*, *Nang-tse-shar*, *Sho Le-kung*, and *Sher-kang*, have each their own sources of revenue. The revenue does not, as under British administration, all go into the Treasury, thence to be drawn out under the sanction of the Tibetan Government for the expenditure of different offices, but each office draws a fixed amount every year from certain fixed districts. For instance, the *Sher-kang* receives yearly 40 *Ngu-sangs* from the *Phari Jongpen* as part of his Government revenue, and similarly receives fixed amounts from several other *Jongs* also. Its expenses, such as wages of Court servants, provision of Court furniture, etc., it meets from its revenue, carrying on the amount from year to year and submitting periodical accounts to the Finance Office, who check and send them to the council. Each office has its own treasure chest.

Similarly some of the revenue of a *Jong* may be remitted to other *Jongs*, monasteries, temples, etc. Some of the revenue is made over to Bhutan, for the Government of Tibet subsidizes some Bhutanese temples and monasteries in somewhat the same way that the Government of China subsidizes the Tibetan army and some of the Tibetan monasteries.

## THE ARISTOCRACY.

The large powers possessed by the landlords over their tenantry have already been noticed. Among the landlords are certain leading families, who occupy their present position by reason of their descent from the parents of past Dalai Lamas or from very high officials. All the leading families have great influence in the country, since, holding the rank of *Se-nam-pa* (or descendants of *Shap-pes*), they are not altogether under the jurisdiction of the *Jongpens*. There are eighteen such families in the United Provinces holding the *Se-nam-pa* rank, which is classed in the 5th grade. It may be useful to mention the names of these families.

Lha-lu.	Lha-ding.
Yu-to.	Nam-se-ling.
Pun-kang.	Pa-lha.
Yap-shi Sar-pa.	Ra-ka-shar.
Tom-pa (or Lab-rang Nyingpa).	Ram-pa.
Sam-trup Po-trang.	Se-chung.
Do-ring.	Sha-tra.
Chang-lo-chen.	Sur-kang.
Hor-kang.	Trum-pa.

Some members of the above families hold special titles, of which the more important are :—

## Special titles.

*Kung*.—This title is given to the father of each Dalai Lama. From him it descends to one of his sons, not necessarily to his eldest son, but to whichever son may be agreed upon in the family. A *Kung* receives a money allowance from the Chinese Government, and a separate grant, usually of land, from the Tibetan Government.

*Chung*.—This is a rank given by the Emperor of China, and is graded slightly below the *Kung*.

*Dza-sa*.—This in Tibet is a title given by the Emperor of China to certain eminent persons or for eminent services rendered.



*Hu-tok-ku*.—This title is a very high one, and is usually given to the incarnate Lamas of the six monasteries which are eligible for supplying a Regent.

*Ta chi*.—A title confined to laymen, given by the Emperor of China.

With regard to the revenue payable by these families, Mr. C. A. Bell has collected the following details about the Pa-lha family, with which he is personally acquainted. The family owns about 1,400 households of *rai-yats*, half of which are contained by the estate of Drong-tse, a few miles from Gyantse. Of these households each pays, on an average, the following rental :—

	Rs
(1) Cash . . . . .	4
(2) 14 or 15 <i>ke</i> of grain . . . . .	.12
(3) Supply of laden animals and coolies ( <i>tan</i> and <i>ula</i> ). All cultivation on the home lands of the Pa-lha family, about 500 <i>kangs</i> , has to be done, and animals and coolies have to be supplied for riding or freight purposes as required, no payment being made in any case . . . . .	.18
	—
	34
	—

The total rent from 1,400 families thus amounts to Rs. 47,600 per annum. In addition the following is paid by an average grazing ground, of which there are about 13, each of which accommodates on the average from 15 to 20 graziers' families :—

- (1) Ten *Mar-tang*—about 120 *ke* of butter, worth 5 *trang-kas* per *ke*—= 600 *trang-kas*.
- (2) Ten *ke* of cream cheese, worth 4 *trang-kas* per *ke*= 40 *trang-kas*. Total, 640 *trang-kas*, or Rs. 213 per grazing ground, or a total of Rs. 2,800 for the 13 grounds.

The total yearly rental is therefore about Rs. 50,400. Of this the Government revenue is approximately as follows :—

	Rs
(1) 18 <i>do-tse</i> on account of Drong-tse . . . . .	2,000
(2) 9,999 <i>ke</i> of grain on account of Drong-tse, this being the amount calculated by Government as being one-fifth of the gross produce. This is either sold, or stored at Drong-tse . . . . .	8,000
(3) Supply of animals and coolies for Government duty . . . . .	15,000
Total . . . . .	25,000

In addition the family has to supply two members as Government officials and there are also occasionally extra taxes, the chief of which are :—

- (1) *Yong-dön*, a tax of a certain amount of grain when any great event, such as a war, takes place.
- (2) *Shap-ten Lem-bü*. This is taken only rarely. The last one was when the Dalai Lama assumed his powers.

A few particulars have also been given by Mr. Bell about the Government revenue and rental of the Lho-ling family of Tsang. This family owns about 200 households of *rai-yats*, from each of which it receives on the average yearly about Rs. 5 in cash and 20 *ke* of barley worth about Rs. 20. It takes free labour as required, but the amount of this is small, and the average family probably pays in money, grain, and services about the



equivalent of Rs. 30 yearly. To the Tashi Lhunpo Government the following has to be given yearly :—

- (1) 2 *do-tse* in cash, or Rs. 222.
- (2) 200 *ke* of barley to be taken to Shigatse, *i.e.*, about Rs. 230.
- (3) Two ponies to be supplied whenever and wherever required.
- (4) Free labour on special occasions.

It will thus be seen that the Government Revenue is light compared with the rental obtained.

#### TAXATION AND CUSTOMS TARIFF.

The taxation of the tenantry is based on the *kang*, which is a quantity of

**Taxation of tenantry.** land to sow which a certain quantity of seed is required, this quantity being apparently the same throughout each estate and varying from 30 to 50 *ke* in different estates and averaging about 40 *ke*. In an estate where the productiveness of the soil is good, the number of *ke* to each *kang* will be higher than in one where the soil is poor, although in the poorer soil the area of the *kang* will be larger. Thus in estates round Gyantse the *kang* is smaller in area than it is around Phari, but each *kang* takes more seed and is therefore more productive than at the latter place. Each *kang* throughout an estate pays the same amount of cash, grain, and supply of transport and coolies. Therefore, in each estate the taxation of the cultivator depends not on his general prosperity, as was the custom in Sikkim and still prevails in the monastic land there, nor on the number of members in his household, as was the former custom in Bhutan, nor on the area of his land, but solely on the amount of seed which is required to sow his land.

A tenant is not allowed to leave his land without the permission of his landlord. If he wants to go away, he must ask for leave (called *mi-trō shü-we*, *i.e.*, "to ask for man-separation") and pay a sum varying from 30 to 50 *ngu-sangs*. Permission is not readily granted. If a member of a better class tenant's family goes away even for a few months, he or the family is expected to inform the landlord, guaranteeing that they will meanwhile be responsible for the land and the taxation. If a tenant who has fled is afterwards caught, he is liable to have to make good the rent for the years during which he was absent, also to be fined, beaten, or otherwise punished.

The trade dues levied by the Tibetans on the more important trade routes between India and Tibet will be found in Appendix J.

Customs tariff.

#### THE TASHI LHUNPO GOVERNMENT.

Some of the *Jongs* in the Tsang Province, of which Shigatse is the capital, and some of those in Western Tibet, are under the Tashi Lhunpo Government. The latter is organised on somewhat similar lines to the Central Government, though on a much smaller scale.



At the head of the Tashi Lhunpo Government is the Tashi Lama, who is known among the Tibetans of the U Province as *Pen-chen Rim-po-che*, but among the Tsang Tibetans by the same titles that are applied to the Dalai Lama at Lhasa. He occupies much the same position in regard to the officials under him as does the Dalai Lama at Lhasa, and is looked upon as the incarnation of the *Bodisat Amitabha*. The mode of selecting a new Tashi Lama is the same as the method, already described, of choosing a new Dalai Lama, the Dalai Lama taking the place of the Tashi Lama in the preliminary investigation.

In the Tashi Lama's household are a *Sim-pon Chem-po*, *So-pon Chem-po*, *Dro-nyer Chem-po*, three *Chang-dzo-pa*, and other officials with generally similar titles, ranks, and duties to those in the Dalai Lama's establishment. The Tashi Lama uses a seal known as the *Ja-sa Ka-tam-ma*. The present incumbent is about 26 years of age; those who have met him speak of his remarkable presence and rare abilities. Mr. Bell's impression of him is that he is intelligent, keen on introducing western improvements, and of fairly strong character, though not so strong as the Dalai Lama himself.

His chief minister is the *Gyap-ying Chem-po*, who combines as Tashi Lhunpo the chief powers exercised by the Council and the *Chi-kyap Kem-po* at Lhasa, and who in the event of the Tashi Lama dying becomes the temporary head of the Government. He is known at Lhasa as the *Shap-pe Lama*. The present incumbent was not brought up at the Government Ecclesiastical College, but was the abbot of the four Colleges of the Tashi Lhunpo Monastery: it was he who, accompanied by the Treasury Officer Ba-du-la, met Colonel Younghusband at Khamba Jong, and he is generally regarded as a very able official. Save himself and the Tashi Lama, no one else in the Tashi Lhunpo Government is permitted to use a square seal, though small circular seals are common.

There is one Grand Secretary (*Trung-yi Chem-po*), an ecclesiastical official of the 4th rank, whose duties are the same as the four at Lhasa: similarly two Treasury Officers (laymen of the fourth rank) correspond to the three at Lhasa. Among the special officials at Tashi Lhunpo not found at Lhasa

are:—

- (a) *Nyer-tsang Chem-po*.—He holds the 4th rank, and his duty is the distribution of pay (barley and barley-flour) to the monks of the Tashi Lhunpo Monastery.
- (b) *Di-chung-nga*.—These three priests of the 5th rank do treasury work.
- (c) *Nor-yon*.—He is a priest official of the 5th rank, and dispenses justice among the monks of the Tashi Lhunpo Monastery.
- (d) *Lu-ding-pon*.—These two priest officials of the 5th rank look after the manufacture of the Tashi Lama's household goods, e.g., carpets, clothes, etc.
- (e) *Lama Chak-pa*.—His duty is to carry the incense in the presence of the Tashi Lama; he is a priest official of the 5th rank.



(f) *Ma-chen Chem-po*.—These three priests of the 5th rank are head cooks.

(g) *Le-tsem-pa*.—There are usually 50 or 60 of these: they are officials of the 5th rank employed on miscellaneous duties at Tashi Lhunpo and may be sent to hold charge of a *Jong*. A *Jongpen* returning to Tashi Lhunpo and having no other work, may be included among the *Le-tsem-pa*, who can be either priest or lay officials.

The Tashi Lhunpo Government, though subordinate to that of Lhasa, has aspirations of total independence.

The next most important administration is that of the Sakye hierarchy, but it ranks much lower than that of Tashi Lhunpo.

### THE PROVINCIAL OFFICIALS.

The portion of Tibet directly under the Tibetan Government, whether that of Lhasa or that of Tashi Lhunpo, is divided into districts, each district being presided over by an official with the title of *Jongpen*, or by one with the title of *Shi-do*. The latter officers, though of lower rank than the *Jongpens*,

**Jongs and Jongpens.** are not subordinate to them: they hold less important charges, but in respect of such charges have the same privileges and duties as belong to the *Jongpens*, in the more important districts. A *Shi-do* is generally addressed by the

**Shi-do.** people with the title of *Jongpen* as a matter of courtesy, but is always styled *Shi-do* in official communications. A *Jongpen* holds the 5th or 6th rank, a *Shi-do* the 7th (or lowest) rank. In the most important *Jongs* two *Jongpens* are stationed together; these may both be laymen, or one layman and one priest. Where there are two *Jongpens*, they conduct business in common, sitting together for the trial of cases, etc.

According to rule, *Jongpens* should be transferred every three years, but they frequently remain much longer.

#### Powers.

Their powers of punishment are as follows:—

- (a) Flogging. He may flog as much and as often as he likes, provided that he does not kill the prisoner. When stolen property has not been recovered, floggings are often repeated several times in the hope that the prisoner may be induced to point it out.
- (b) Fine. The amount of the fine is nominally limited to about Rs. 150, but in practice much larger amounts are imposed. As the fines are retained by the *Jongpen* himself, it is to be presumed that this is a popular form of punishment.
- (c) Chains. These consist of a wooden ring round the neck and iron fetters on the legs. A *Jongpen* can impose this punishment (which is similar to the Chinese *cangue*) for a period of three or four years, but applications for longer terms should be referred to the Council at Lhasa.

A *Jongpen* who wishes to impose a severer punishment than the law allows him refers the case to the Council for orders. He will, however, sometimes



carry out such sentences as the cutting off of a hand or foot, the extracting of an eye, or the confiscation of the entire property of a prisoner, on his own responsibility, reporting to the Council that he has done so. The power of

#### Capital Punishment.

inflicting capital punishment rests with the Dalai Lama himself. The commonest mode of execution is by tying the condemned man round the neck, arms, and legs with rope and throwing him into deep water. One end of a second rope is fastened round his waist, and, the other end being held by persons on the bank, the corpse is pulled out. The hands are then cut off at the wrists and the head is exposed in the market-place. Occasionally a criminal is executed by having the lower portion of his chest cut out.

Suitable punishments for different offences are laid down in the Penal Codes (*trim-yik*), of which there are

#### Penal Codes.

two :—

- (a) the *She-che Chu-truk-pa*, composed by De-si Sang-gye Gya-tso, the Regent who built the Po-ta-la ;
- (b) the *She-che Suk-sum-pa*.

The two codes are said to be very similar in substance, but the latter is the one more frequently used.

#### Income of a Jongpen.

The income of a *Jongpen*, by which he pays his revenue and makes his own profit,

is derived as follows :—

- (a) the dues from the people within his jurisdiction ;
- (b) the proceeds of fines imposed ;
- (c) bribes ;
- (d) private trading ;
- (e) Customs dues ;
- (f) failing to submit the revenue in full for several years until, when the arrears have accumulated to a large figure, the Government compounds with him for a smaller amount ;
- (g) his own landed estate, which is held by him under the proviso that one member of his family shall always serve the State.

#### Servants.

The chief members of a *Jongpen's* establishment are as follows :—

- (a) the *Chi-nyer*, or Public Steward, who superintends any public duties which the *Jongpen* makes over to him, such as the collection of revenue, the witnessing of floggings, etc. ;
- (b) the *Nang-nyer*, or Private Steward, who is the head of the private servants, supervising their work, food, etc. ;
- (c) the *Dzong-trung*, who performs the clerkly duties ;
- (d) the *Kang-nyer*, or Caretaker, who looks after the buildings of the *Jong*.

Every year the *Jongpen* receives a copy of the " Rules of Business " (*tsa-tsik*) from Lhasa, by which he is expected to regulate his administration. He does not concern himself with disputes between two tenants of the same landlord ; each landlord has the same power of punishment over his own tenants that the *Jongpen* has over those within his jurisdiction. A landlord, therefore, has almost unlimited power over his tenantry, while the *Jongpen*



is much less a district officer, as the term is understood in India, than a contractor for the revenue and resources of the district under his charge.

The following lists of *Jongs* in the provinces of U and Tsang are almost certainly incomplete, and will require to be supplemented from time to time as

**List of Jongs.**

further information is acquired :—

**In the Province of U :—**

Chusul.  
Kongkar.  
Dejen.  
Lhundub.

**In the Province of Tsang :—**

Pe-de	. . . . .	On Yamdrok Tso.
Nagartse	. . . . .	On Yamdrok Tso.
Rinpung	. . . . .	On the Rong Chu.
Namling	. . . . .	On the Shang Chu.
Lhabuk	. . . . .	Ditto.
Gyatso	. . . . .	Ditto.
Shigatse	. . . . .	On the Nyang Chu.
Penam	. . . . .	Ditto.
Gyantse	. . . . .	Ditto.
Khamba	. . . . .	On the upper Arun.
Tinki	. . . . .	Ditto.
Rhe	. . . . .	On the Rhe Chu.
Pin-dzo-ling	. . . . .	On the Tsangpo.
Lhatse	. . . . .	Ditto.

The chief officials in Western Tibet are the two Governors (*Gar-pon*) of Government of Western Tibet. Nari Khorsum who reside at Gargunsa during the nine coldest months of the year and move to Garyasu, 40 miles distant, for the remaining three. They have under them several *Jongpens* and *Shi-dos* (the latter being locally known as *Tar-jums*) who preside over the districts of Rudok, Barkha, Da-pa, Pusung, Chab-rang, and Chang Tang. The Barkha official is said to be the most influential. The two *Gar-pon* are both laymen, holding 4th rank in their own province, but 5th rank in Lhasa, where they are regarded as *Jongpens*. They are thus of lower rank than regular 4th grade officials, such as *Tsi-pon*, *De-pon*, etc., and it is, therefore, misleading to style them "Viceroys," as is usually done in Government reports.

**ADMINISTRATION OF EASTERN TIBET.**

The numerous sub-divisions and semi-independent States of the province of Kham present so complicated an administrative patchwork that it will be necessary to deal with each one of them individually. The following list will be found fairly comprehensive of this region :—

**SUBJECT TO LHASA.**

Lha-ri-go.		Na-gong.
Pemba.		Tra-rong.
Sho-ba-do.		Mar-kham.
Lho Jong.		Nya-rong.
Pa-shu.		Tsa-kha.



## SEMI-INDEPENDENT.

Nam-tso.  
Ten-do.  
Jye-kun-do.

Gyade.

Derge.  
Chiamdo.  
Draya.

## SUBJECT TO CHINA.

Hor-chyok.  
Litang.

Batang.  
Kin Chuan.

Pem-ba, Sho-ba-do, Lho Jong, Lha-rigo, Pa-shu, Na-gong, and Tsa-rong (of which the first three are known collectively as Sho-ta-lho-sum) are all administered by *Jongpens* appointed from Lhasa, and are directly subject to Tibet.

Mar-kham (or more properly Mang-kham) is a Lhasa-governed province presided over by a lay *Te-chil* (Governor) holding 4th rank in his own province but 5th rank when he comes to Lhasa. Mar-kham is an important administrative centre and is recognised as the frontier State of Eastern Tibet: its eastern boundary, which lies on the Bam La and has been properly delimited by the erection of pillars, is one of the few defined frontiers in this part of the world.

Nya-rong is a Lhasa-governed province under a *Chi-kyap* sent from Lhasa, who is relieved every three years. An ecclesiastical official and a lay official hold the post (which carries 4th rank) in turns. 300 Tibetan troops are stationed in Nya-rong,—the only Tibetan garrison outside the limits of Central Tibet.

Tsa-ka is a Lhasa-governed province (containing a mixed population of Tibetans and aboriginal Mossu), which extends from below Gartok (Mar-kham) almost to Atuntse.

Nam-tso and Ten-do are the two most important districts among the thirty-nine hundreds into which the pastoral Tibetan tribes of the upper Yangtse were organised by the Chinese in 1732. These tribes are ruled by hereditary chieftains (or *Debas*) and pay tribute to China. Those to the north are nominally under the control of the *Amban* at Si-ning; those near the borders of Ssu-chuan are under the Governor-General of that Province.

Jye-kun-do is, it appears, ruled by a Lama, but there is also a resident Chinese official; the latter, however, has little or no real power.

Derge appears to be the most independent of all the Eastern Tibetan States.

Tibet and China have both at various times endeavoured to assert their authority here, and the country was actually occupied by Tibetan troops from 1884 to 1887; but the people drove out the Lhasa garrison and General, and have since continued to conduct their own affairs, with occasional squabbles with their neighbours. They are said to dislike the Chinese and to keep them—merchants and officials alike—as much at a distance as possible. Derge pays tribute to Lhasa in the form of metal-work, etc.

Chiamdo is a large district described as an ecclesiastical fief under the rule of a high incarnate dignitary of the *Ge-luk-pa* sect, who is termed the *Pa-pa-lha* and is an important functionary in the political world of Eastern Tibet. Tribute is paid to Lhasa, but a Chinese garrison occupies the place.



Dra-ya, or Tra-ya\*, is an ecclesiastical principality presided over by an official who is known as the *Tra-ya Mi-ser Go-pa* ("Chief of the Tra-ya Subjects") and who is a living Buddha of the *Ge-luk-pa* sect. Dra-ya has been nominally under Lhasa rule since 1719, paying tribute in the form of tea and silver, and its sympathies are strongly anti-Chinese.

Gyade is a province (whose people profess the *Pön* creed) ruled over by a chieftain known as the *Hor-tri-gya-pe-ka*, who resides at Pa-chen on the Suk Chu. Its individuality as a province is due to the intervention by the Chinese in the 17th century in a religious warfare which was being carried on between the *Pön* and other Buddhist sects; the differences of opinion between the two belligerents were settled by the formation of a *Pön* province, which received the name of Gyade.

Hor-chyok comprises the five States of Kangsar, Mazur, Berim, Chuwo, and Chango, and, excepting Derge, is the most populous and wealthy region of Eastern Tibet. Each of the five Hor States is ruled over by its own chieftain under the immediate suzerainty of China. After a long resistance on the part of the inhabitants, Chinese influence was established in Hor-chyok in 1883; in spite, however, of Chinese troops and officials, the influence is, as elsewhere, purely nominal.

Litang and Batang are two petty Chinese States, each controlled by two native headmen (or *Debas*) as Civil Magistrates, but the authority of the latter is overshadowed by the Chinese officials and by the Lamas of the neighbouring monasteries.

The eighteen Man-tzu (or Si-fan) States, known collectively as Kya Rung or Kin-Chuan, have been fully dealt with in Chapter II. Regarding their administration, it need only be said here that each is ruled by its own chieftain† and all are subject to China. Badi and Bawang (O'Connor's Dasti and Pamug, and Rockhill's Pati Pawang) are under one chief, who, in 1903, was a woman. Hitherto these States have enjoyed the utmost freedom, professing allegiance to Lhasa rather than to Peking, but the disturbances about Batang in 1905 have resulted in China increasing her authority on the Tung Ho, and latest reports show that a Governor and Provincial Treasurer have been appointed to Batang, *Taotais* to Ta-tsien-lu (Man-tzu Chagla), Ya-chou, Batang, and Chantui, and Prefects to Ta-tsien-lu, Ya-chou, and the Man-tzu territory proper. It is further proposed to establish various sub-prefectures and magistracies, and to appoint a Brigadier-General over the whole.

The whole of Lho-kar and Lho-nak, or South-eastern Tibet (with the exception of Po-yul) is under Lhasan rule and is governed by *Jongpens* in the different forts. All these districts send tribute to Lhasa, but are more than semi-independent.

\* Huc alludes to this petty State as Djaya, and Sandberg as Tragyab. The latter states that a dual ecclesiastical rule has been established here, but his authority for the assertion is not given.

† O'Connor excepts Tsania and Rabden, which, he says, "appear to be republics," and, in view of the fact that his principal informant was "an exceedingly intelligent native of Tsania" this may be accepted as authoritative.



## THE MONASTERIES.

The ecclesiastical section of the Tibetan community is so influential a factor in the Government of the country that some reference to the Monasteries and their power is necessary in considering the administration of the country.

Before the present Dalai Lama assumed office the Monasteries and the Chinese were the controlling influence in Tibetan politics, internal and external. The monasteries were able to influence any Regent to a large extent, because the latter's appointment and removal lies largely with the National Assembly, in which the influences of the Monasteries used to predominate. When the present Dalai Lama took up the reins of Government, he set about reducing the powers of the Monasteries and of the Ambans, thereby increasing to some extent that of the Tibetan lay officials. It still happens, however, that high officials will bribe large monasteries with gifts of tea, etc., in order to get those monasteries to back their interests in the National Assembly. The monks have still greater power than the laymen; in ordinary small cases between monks and laymen, justice is apt to be strained in favour of the ecclesiastic. Moreover, during the *Mo-lam* and *Tson-cho* Festivals, the monks control the administration of justice in Lhasa and the power of the *Mi-pons* is in abeyance throughout the period.

Except the three monasteries of Se-ra, Dre-pung, and Gan-den, none have the privilege of sending delegates to the National Assembly, and none in Central Tibet receive large grants of pay from the Emperor of China. It thus happens that one of the strongest influences in the country is in favour of the Chinese connection. That the subsidy is a large one will be understood when the expenses defrayed from it in connection with the *Mo-lam* and *Tson-cho* Festivals are stated. During these two festivals, which last altogether 34 days, there are on the average some 50,000 monks in Lhasa. Each monk is allowed—

(a) Tea and soup three times a day.

(b) A present each day of two annas (1 *kar-ma-nga*) if a monk of either of the three subsidized monasteries or of a Lhasa monastery, and one anna (1 *ka*) if of any other monastery.

The chief monasteries in the Provinces of U and Tsang are as follows :—

## In and near Lhasa—

Se-ra.  
Dre-pung.  
Gan-den.  
Ten-gye-ing.  
Kun-de-ling.

Tse-cho-ling.  
Tso-mo-ling.  
Mu-ru.  
Shi-de.  
Ne-chung.

## In the U Province outside Lhasa—

Sam-ye.  
Cho-kor Yang-tse.  
Ngam-cho-pa.  
Rong Cha-kar Cho-de.  
Nga-rik Tra-tsang  
Kong-kar Cho-de.

Sam-pu Ra-to.  
Yang-chen gon.  
Tse-tsok-pa.  
Ri-uDe-chen.  
Bi-kung Che-tsang.  
Pem-po Gan-den Cho-kor-ling.

## In the Province of Tsang—

Tashi Lhunpo.  
Na-tang.  
En-gon.  
Lha-tse.  
De-chen Rab-gye.  
Ga-rap.

Sa-kya.  
Nam-ling Gan-den Cho-kor-ling.  
Tsur-pa Kar-ma-wa.  
Ga-dong.  
Shi-ne Tra-tsang.  
Tse-chen.



## RANKS, UNIFORMS, AND DECORATIONS.

There are seven official ranks in Tibet, the first rank being the highest. Every Tibetan official has his rank, which is determined by the appointment or title that he holds, whichever be the higher. For instance, the Pun-kang kung, who is one of the Tsang *De-pons*, holds the first rank from his title of *kung* and not the 4th from his post of *De-pon*, though the post, as carrying power and profit, is usually more highly valued than the title. The higher the rank of an official, the higher, as a rule, is the seat that he receives at public functions or private entertainments. Each rank is distinguished by a different "button" (*to*) after the Chinese fashion. This is worn in the middle of the crown of the hat. Ecclesiastical officials of whatever rank do not wear the button, the higher grades of priests being distinguished by their yellow-silk jackets (*ta-ko-tse*) and the lower grades by a silk lining to their coats (*charu chabdok*).

The first rank is the ruby (*Pe-ma-ra-ka*) button. It is held at present by the *Yap-shi Kung*, the eldest brother of the Dalai Lama, and by the *Lha-lu Kung*, the head of the *Lha-lu* family. The button is held by three descendants after the original holder, later descendants dropping to the second button. Holders of the ruby button have also the right of wearing the Double-Eyed Peacock Feather (see below).

The second rank is the coral (*Chi-ru*) button. These buttons are hereditary for ever; descendants do not, after a certain number of generations, drop to the lower button.

The third is the amethyst (*Tang-she*) button. It is held by all *Shap-pes*, when confirmed as such by the Emperor of China.

The fourth, fifth, sixth, and seventh are the blue (*mu-me*), glass (*She*), shell (*Tung*), and brass (*Rak*) buttons respectively.

It not infrequently happens that an official holds a higher button than the ordinary one pertaining to his rank. The position and influence of an official is reckoned by his rank rather than by his button.

There are also four grades of Feathers. First is the Three-Eyed Peacock Feather (*Drom-dom Mik-sum*), which at present is not held by anyone in Tibet. The second is the Double-Eyed Peacock Feather (*Drom-dom mik-nyi*), which generally accompanies the ruby button. At present it is not held by anyone else in Tibet, but it may be granted to any of the higher officials. The third is the Single-Eyed Peacock Feather (*Drom-dom Mik-chi*); it is worn by officials of the 4th rank and upwards. The fourth is the Bird's Tail, (*Cha-shu*), worn by those officials of the 4th and 5th ranks to whom it is given.

The Tibetan is not allowed to dress altogether as his fancy chooses. As regards the lay officials, those who have received their buttons from the Emperor of China are allowed to wear robes entirely of yellow silk. *Chungs*, *Ta-chis*, *Dza-sas*, *De pons*, and *Po-pons* are expected to wear silk slightly inferior to that worn by *Kungs* and *Shap-pes*. The rest of the 4th rank, the two *Mi-pons*, the two lay *Sho-pa* and the two *Chik-pon Chem-po*, are allowed to wear yellow silk mixed with other colours. Other officials are not allowed to wear yellow silk at all. Boots are of three kinds:—The first kind, worn by all down to and including the 4th rank, consists of red cotton with stripes of blue and white silk up the front and back of the boot, and round top and bottom



of the foot. The boot reaches half way up to the knee and is known as the *Ja-chen Tse-ka* ("the Vermilion Boot of Many Colours"). It may also be worn by officials working in Lhasa down to the 6th rank on the occasion of the *Mo-lam* and three or four other important festivals. The second kind of boot is worn by lay officials of the 5th rank and is of liver coloured cotton of the same height and with the same stripes as the *Ja-chen Tse-ka*, and is known as the *Ja-chen Gya-mu*. The third kind is worn by all lower officials and consists of liver-coloured leather of the same height and with the same stripes. It is known as the *Bu-le Ja-chen*.

On attaining the position of an ecclesiastical official, a robe partly of red silk and partly of red woollen cloth is worn. This is known as the "upper robe" (*ko-to*) and is worn by all up to and including the 4th rank. The ecclesiastical official after appointment will also wear boots like the *Bu-le Ja-chen*; such boots are worn by all up to and including the 5th rank. Ecclesiastical officials of the 3rd and 4th ranks wear boots like the *Ja-chen Tse-ka*, but worked in a different pattern. The *Chi-kyap Kem-po*, the *Ka-lon Lama*, and the *Ta Lamas* wear ordinarily a robe known as the *Ta-ko-tse*, made of yellow silk in a different style to that worn by the *Shap-pes*. Lay officials wear their hair tied in a cylindrical plait on the top of their head, a fashion which is permitted to them alone and may be said to constitute a part of their uniform.

#### CHINESE OFFICIALS.

The head Chinese officials in Tibet are the *Ambans*, of whom there are usually two, known as the senior (*Kong*) and the junior (*Ok*), or as the Eastern (*Shar*) and the Western (*Nup*). They are in supreme charge of the Chinese officials in Tibet and reside in Lhasa. They hold second rank and report direct to the Chinese Emperor.

The *Jar-go-che* is the chief minister under the *Amban*, and is consulted by the latter on all matters of importance. He is a civil officer of the 3rd rank. As a grant of land during his tenure of the appointment, he receives the estate of *Dam-Gya-shok-pa*, 7 or 8 days north of Lhasa.

The *Pom-po-la* (or *Wo-men*) is the *Amban's* Intelligence Officer, his duty being to report confidentially to the *Amban* occurrences of political importance among the Chinese and Tibetans, the relations between the Indian and Tibetan Governments, events of political importance in India, etc. The post is a highly paid one, for which reason the *Ambans* have, for many years past, kept it vacant in order to draw the pay for themselves; a considerable income can also be derived from bribes. The office carries with it the 5th rank.

The *Gya-trung*, of whom there are several holding 7th rank, are the clerks whose duty it is to transcribe letters from Chinese to Tibetan, and *vice versa*.

The *Tro-kang Pom-po*, also holding 7th rank, transcribe letters from Chinese or Tibetan into Mongolian, and *vice versa*.

The *Po-pons* are civil provincial officials, usually of the 4th rank, who are in charge of Chinese interests in different districts. If a Chinese subject be concerned in a dispute with a Tibetan, the *Po-pon* decides the case in conjunction



with the *Jongpen* or other Tibetan official in charge of the district. Each *Po-pon* has under him a number of *Yungs*, who act as his body-guard and perform also the duties of messengers and general servants. *Po-pons* are in the habit of keeping their establishment of *Yungs* below strength and appropriating the extra pay themselves. The *Po-pons* are stationed as follows :— One at Lhasa, one at Shigatse, one in the Chumbi Valley, one at Chiamdo, and one at Lha-rugo.

Before leaving the subject of the Government of Tibet, it may be convenient to summarise the leading principles

Leading principles of Tibetan administration.

which govern the administration of the country. These principles are as follows :—

(1) The power of the Dalai Lama is unlimited in theory, but in practice is limited—

(a) by his subordinates keeping him in ignorance of what transpires.  
(b) by the National Assembly, to whose recommendation he will generally pay heed.

(c) by choosing him from a peasant's family, so that he does not form a member of an already powerful family.

(d) by not giving public appointments to members of his family. This last check, however, is of only limited efficacy, for relations may hold private appointments which carry great influence.

(2) In internal affairs concerning laymen the chief power under the Dalai Lama rests with the Council.

(3) In foreign affairs, the chief power under the Dalai Lama rests with the National Assembly.

(4) The leading Lamas have great power owing to the sanctity which attaches to their position.

(5) The right of monks to be tried by monks gives them individually greater power than laymen.

(6) The powers exercised by landlords over their tenantry are very large.

(7) Petitions to an official are not submitted to him direct, but through a public subordinate or through a private servant of the official concerned.

(8) The salaries of all officials are small, but large profits can be made by bribes or other indirect means.

(9) Many officials are treated as contractors with regard to their work. This leads to the practice of allowing relations and other nominees to hold posts as substitutes for the real holder of the office.

(10) The revenue is despatched from the collecting agencies direct to the expending agencies instead of through a Central Treasury.

(11) Two *Jongpens* are stationed in each important *Jong*, the one to keep watch over the other.

(12) Money stored in the Government and monastic Treasuries is lent out at interest to private persons.

#### CURRENCY.

Until this year (1909) the Tibetan currency consisted of one single coin\*

#### Currency.

—the *Trang-ka*—which is cut into various sub-divisions to represent smaller sums.

Formerly all the coinage was supplied from Nepal; but upwards of a century ago it was found that the coins so supplied were extremely base in

\* The Chinese Government has introduced Chinese rupees into Tibet and is endeavouring to force their circulation. The Tibetans, however, much prefer the India rupee.



metal, some having even a reddish tinge due to the amount of copper mixed with the silver. The contract with Nepal was therefore broken off, and latterly *trang-kas* have been minted in Lhasa under the direct superintendence of the Dalai Lama and his ministers.

The *Trang-ka* is a thin circular coin about the size of an English half-penny, and is made of an alloy of silver and copper. Its nominal value is six annas,

Different kinds of *Trang-ka*. but three *trang-kas* can always be purchased in Tibet for a rupee. The actual present exchange value is about  $3\frac{1}{2}$  *trang-kas* to the rupee. Six annas is, however, a convenient sum to accept as the value of the *Trang-ka*, as it is capable of sub-divisions without involving small fractions of an anna. There are various *trang-kas* in Tibet, of which the commonest are the *Gan-den Po-dang Trang-ka*, the *Kongpar Trang-ka*, the *Tung-tang Trang-ka*, the *Cho-tang Trang-ka*, and the *Pa-nying Trang-ka*. Of these the first is the commonest. It bears upon one side the Tibetan inscription *Gan-den Po-dang Chole Nam-gyal* ("The Virtuous Palace Victorious from All Sides"); and on the other are found the *Ta-shi ta gye*, or eight signs of good luck. This *trang-ka* is never sub-divided: if, however, it should be cut, it is termed in the vernacular the *Pongn subt* ("Donkey's Hoof").

The *Tung-tang trang-ka* is a Tibetan coin said to be named after a High Chinese official who was once deputed to Lhasa to settle some dispute between the Reting Gumpa and the Lhasa Government. It resembles the coin above mentioned in that it has the eight signs of good luck on the one side; but on the other it has only some ornamental scroll work.

Another purely Tibetan *trang-ka* is the *Kong-par trang-ka*, similar in appearance and value to the *Gan-den Po-dang trang-ka* except that it bears no inscription, carrying in the centre of one side a square instead of a circle and inside the square being stamped certain Tibetan numerals.

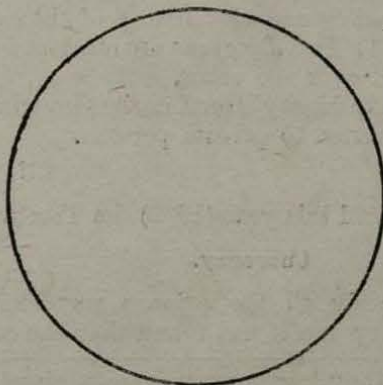
The *Cho-tang trang-ka* is a coin of Nepalese manufacture but current in Tibet. It is inscribed with various Nepalese letters and signs, and bears the name of the reigning king and the date of manufacture upon it. Its Nepalese name is *Mohr*.

#### *Sub-divisions of the Trang-ka.*

The *Cho-tang trang-ka* is subdivided by cutting it into the following fractions. Taking a *trang-ka* as worth six annas, the value of each fraction is as below:—

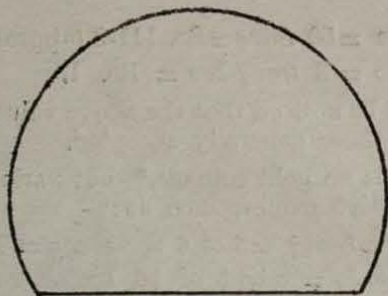
Sub-division of the *Trang-ka*.

TRANG-KA: OR 6 ANNAS.

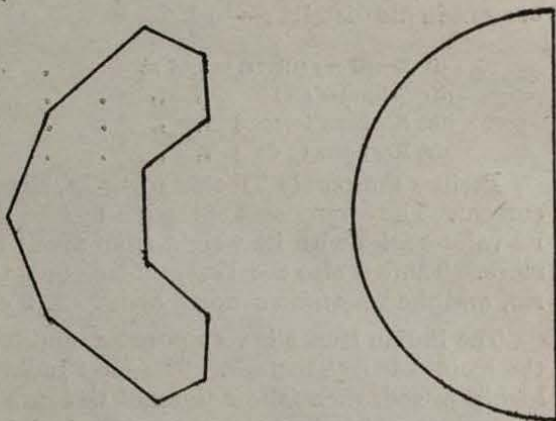




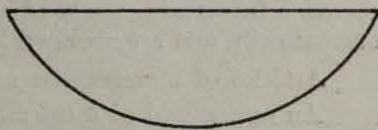
SHO-KANG, OR 4 ANNAS.



CHI-KYE, OR 3 ANNAS.



KARMA OR KARMANGA, OR 2 ANNAS.



It will be seen that a *trang-ka* can be cut into two pieces, a *sho-kang* and a *karma*, aggregating 6 annas in value or into two halves (*chi-kye*) of three annas each. The *chi-kye* is found in two forms—one a complete half-disc, the other with the centre cut out. The eccentricity of the latter form is due to the fact that the smith who performs the cutting keeps the centre portion for his own profit. Similarly the *sho-kang* is sometimes found with the centre portion excised.

Other monetary values.

Other monetary values are as follows:—\*

*Ka-cha* = 5 annas.*Sho-nga* = 5 *sho-kang* = 3 *trang-kas* + 1 *karmanga* = Re. 1-2 (approximately).

\* Like the English "guinea," these sums are known by distinguishing names, but none are represented by a separate coin.



*Do-tse* = 50 *Sang* = Rs. 111-2 (approximately).

*Gormo* = 3 *trang-kas* = Re. 1.

It will be noticed that the above values do not agree mathematically, but they are those generally accepted.

There is no gold coinage,\* but various weights of gold-dust are known by distinctive names, such as :—

*Ser-sho-kang*† = 5 or 6 *ngo-sangs* = Rs. 12-8 to Rs. 15.

*Ser-tumbo* = weight of 16 Indian rupees.

In addition to the *trang-ka* the following silver and copper coins have recently been minted in Lhasa, and a consignment of them were sent to the *Phari Jong-pen* in September 1909, with the order that he was to make them current in his district :—

									R	a.	p.
(i)	<i>Sang-kang</i> (silver)	valued at	.	.	.	.	.	.	2	4	0
(ii)	<i>Sang-ched</i> (do)	" "	.	.	.	.	.	.	1	2	0
(iii)	Khakang (copper)	" "	.	.	.	.	.	.	0	1	0
(iv)	Khap-che (do)	" "	.	.	.	.	.	.	0	0	6

Besides the purely Tibetan *trang-ka*, silver ingots brought from China are current. The commonest of these is termed the *Ta-mik-ma* ("Horse's Hoof") its value varies with its weight from about Rs. 60 to Rs. 70 and often much more. There is also the *Yak-mik-ma* equal to about one-fifth of the *Ta-mik-ma*, and the *Ra-mik-ma* worth about Rs. 2 or Rs. 3.

The Indian Rupee is very popular, and large numbers of these coins are in the hands of the Tibetans. The East India Company's rupees are the most highly prized, then follow those of Queen Victoria's later reign, and thirdly the rupees which have been struck during the last few years. This is probably accounted for by the East India Company's coins having the greatest width, while those having the smallest diameter are the coins bearing the head of King Edward VII. Small Indian silver coins are very scarce. In certain parts of Eastern Tibet, Indian rupees are the only current coin, and are chopped in fractions in the same way as the *trang-ka*.

Articles of merchandise are often used as coin; for instance :—

An ounce pod of musk = 20 rupees.

A five-lb. brick of wood-tea = 1 rupee.

A Chinese bushel of wheat-flour = 1 rupee.

A *sheng* (three quarts) of barley = 1 rupee.

but these rates vary in different parts of the country.

The following is the rate of exchange in the outlying districts of Eastern Tibet :—

1 *tiao* = 1,000 copper cash = Rs. 1-11.

820 to 850 copper cash = 1 Ssu-chuan dollar.

1 Ssu-chuan dollar = 0.71 Cheng-tu tael = Rs. 1-7.

1 Chengtu tael = Rs. 2.

1 Shanghai tael = Rs. 1-14-0.

1 Chinese Rupee = 11½ annas.

\* It is announced that the Chinese Ministry of Finance propose to establish a bank in Tibet, which will issue notes.

† *Ser* means "gold," and *kang* means "one" or "a whole."



## WEIGHTS AND MEASURES.

Measures of length :—

*Sor*—The width of the top joint of the thumb.

*Sor-nyi* (2 *sors*)—The width of the first and the second fingers together.

*Sor-sum* (3 *sors*)—The width of the first, second, and third fingers together.

*Sor-shi* (4 *sors*)—The width of all four fingers.

*Chag-kang*—The width of the closed fist with the point of the thumb resting on the middle knuckle of the first finger and measured along the line of the middle knuckles, including the width of the end of the thumb.

*Cha-to*—The span of the thumb and first finger.

*To-kang*—The span of the thumb and second finger.

*Kum-trug-kang* (or *Kyu-kang*)—A cubit, from joint of elbow to tip of middle finger.

*Gyong-dom* (or *Dom-kang*)—The width of extended arms to tips of middle fingers.

According to Rockhill, the last two measurements are known in Eastern Tibet as *tru* and *domba* respectively. He also mentions an unit of measure called a *to*, which he describes as a "span."

With the exception of the Chinese *li*, there do not appear to be any larger units of length than those enumerated above. The length of a *li* differs according to the nature of the country, but in Eastern Tibet, where this measurement of distance is mostly adopted, four *li* may be taken as the average per mile in level and mountainous country combined.

There appear to be no recognised measures of area. Fields are estimated

as already described by the amount of barley required to sow them, though this is by no means a constant quantity. In Upper Tromo the unit of barley for this purpose is the *tre*, and in Lower Tromo, the *mar-phu*.

Measures of weight.

The following are the usual Tibetan measurements of weight :—

14 *nya-kas* = 1 *trō*.

2 *trōs* = 1 *gya-ma*.

10 *gya-mas* = 1 maund.

One *nya-ka* =  $4\frac{1}{4}$  oz., and 12 *gya-mas* are expected to give one clear maund of wool (the chief commodity weighed in *gya-mas*), after allowing for the rope with which the wool is fastened.

The *srang-chung* is the Tromowa unit of weight; it is  $\frac{2}{3}$  of a lb., while 3 *srang-chungs* are equivalent to one seer. Four *srang-chungs* make one *srang* or *ma-srang*, and six make one *trō*; twenty *trōs* are equivalent to one maund.

Cloth is measured by the *kha*, which is the square of width obtained by folding the width across diagonally. The number of *khas* therefore varies with the

Cloth measures.

width of the cloth.



## Measures of capacity.

The following are the measures of capacity :—

## IN LOWER TROMO.

4 *Phutags* or *To-phus* = 1 *Mar-phu* or *Sang-phu*.

		lbs.	ozs.
<i>A mar-phu</i> of barley	weighs . . . . .	2	5
buck-wheat	„ . . . . .	1	13
rice	„ . . . . .	2	10
salt	„ . . . . .	4	0
flour	„ . . . . .	1	14

## IN UPPER TROMO.

5 *phu-tags* = 1 *tre*

		lbs.	ozs.
<i>A tre</i> of barley	weighs . . . . .	3	14
buck-wheat	„ . . . . .	2	13

The unit of measure in Tibet proper is the *ke* or *ten-dzin kar-ru*, which is the equivalent of 33 lbs. of barley, peas, or rice, and of 17 lbs. of barley-flour. The unit of dry measure in Eastern Tibet is the *bo*, which corresponds approximately to the Chinese *sheng*; a *bo*-full of anything is, however, called a *ka*.

It appears that the only liquid sold by measure is beer (*Chang*). Earthen-ware vessels of a fixed size are used, and are named from the price for which that

Liquid measure.  
amount of beer is sold, thus :—

	Annas.
1 <i>Kar-ben</i> . . . . .	2
1 <i>Chhe-ben</i> . . . . .	3
1 <i>Sho-ben</i> . . . . .	4
1 <i>Tang-len</i> . . . . .	6



## CHAPTER IX.

## MILITARY.

At the time of writing (1909), the military forces of Tibet are said to be undergoing a systematic reorganisation. Until quite recently it had been the policy of the Chinese Government to preserve an attitude of indifference towards Tibet and Tibetan affairs, more especially in regard to all questions of internal administration: the presence of two Ambans at Lhasa and of a handful of Chinese troops in different parts of the country were almost the only outward and visible signs by which the Tibetan Government might be reminded of the suzerainty of Peking. The feeble resistance offered by Tibet to the advance of the British Mission in 1904 and the independent spirit in which the negotiations were conducted, have resulted, it appears, in the awakening of China to the administrative needs of this portion of her Empire, to the military unpreparedness of Tibet, and to the unreality of Chinese authority in the country. This awakening has produced an active determination to bring Tibet more nearly under the administrative control of Peking, and, incidentally, so to reorganise her military forces as to make her in some degree self-supporting and to fit her for the responsibilities entailed by her important position in the political geography of Asia. At present it is not quite clear to what extent this reorganisation has been carried into effect, and it is therefore impossible to do more as yet than describe the Tibetan army as it has existed hitherto, and then to sketch in brief outline the nature of the reforms which are said to be contemplated by the Chinese military authorities.

**Constitution of the Military Forces of Tibet.** The military forces in Tibet comprise:—

- (1) a regular army (*Trap-chi Ma-mi*),
- (2) three different forms of militia, viz.:—
  - (a) the *Don-ma*,
  - (b) the *Ser-ma*,
  - (c) the *Chop-gye Truk-chu*,
- (3) a permanent garrison of Chinese troops.

The Regular Army consists nominally of about 6,000 men\* (though in reality it falls far below this strength),

**The Regular Army.**

and is stationed at Lhasa, Shigatse, Gyantse, and Dingri, with a force of 300 men in the outlying province of Nyarong and small detachments in the different forts throughout the country.

The *Don-ma* is the first line of militia. For its recruitment the country is divided into units known as *don* (from

**The Militia.**

**The *Don-ma*.**

which the force derives its name) or *kang*, each *don* being liable for one soldier.†

The soldier is supplied by his landlord with an outfit of clothes when he is called up for service, as well as with a Tibetan gun, a spear, and a sword.

\* Some difference of opinion is expressed on this point, but most estimates give the figure as either 6,000 or 3,000. It is probable that the former is the nominal, and the latter the actual, establishment.

† The *don* (or *kang*) is used as a tax-unit for various other purposes. See Chapter VIII, page 125.



His food on service is supplied by the State. Each detachment of the *Don-ma* is commanded by one ecclesiastical and one lay official, who give their orders to the detachment through its own local officer.\* The total strength of the *Don-ma* available for field service appears to be about 40,000 to 50,000 men, though it is difficult to estimate the numbers with any accuracy. Considerable numbers were employed in 1888 and 1904.

The *Ser-ma* (or "Golden Army") is composed of the monks throughout Tibet, and the numbers available for field

**The *Ser-ma*.**

service would probably amount to 70,000 or 80,000 men. They were not, however, employed during the campaign of 1904; there is no record, in fact, of their having ever been employed in the field, though it is said that they were about to start for the front in 1888 when peace was arranged. The *Ser-ma* are fed and armed by the State, but clothed at the expense of their respective monasteries. They are officered in the same way as the *Don-ma*, the two officials working through the medium of the monastic officers.

The *Chop-gye Truk-chu* (or "Eighteen to Sixty Militia") is a levy of all males between the ages of eighteen and

**The *Chop-gye Truk-chu*.**

sixty. It exists, however, only in name, for there is no record of its having ever been called up, or of any immediate question of doing so having ever arisen.

The strength of the Chinese troops in Tibet has hitherto been nominally about 2,000. The chief of the Chinese

**‡ The Chinese Garrison.**

military officials (under the *Ambans*) are the three *Tung-ling*s in charge of military districts: one is stationed at Lhasa, one at Chö-ten Kar-po in the Chumbi Valley, and one at Chiamdo in Kham. The *Tung-ling* of Chö-ten Kar-po is supposed to have command of 140 men altogether, including those stationed in the Chumbi Valley, Gyantse, and Khamba Jong; the actual number is very much less, and the balance of pay is appropriated by the *Tung-ling* himself.† Each *Tung-ling* has under him one or more officers of the 5th rank known in Tibetan as *Da-lo-ye*. The *Tung-ling* of the Chumbi Valley has two *Da-lo-yes*, one stationed at his headquarters at Chö-ten Kar-po, the other at Yatung. The Chinese troops at Shigatse are in charge of a *Da-lo-ye* who is under no *Tung-ling*, but whose immediate superior is the *Amban* at Lhasa. Under the *Da-lo-ye* comes the *Trim-pon*, who acts as the former's general assistant, especially in connection with the maintenance of discipline among the troops. Often, however, the *Trim-pon* are directly under the *Tung-ling*. Under the *Tung-ling* of the Chumbi Valley there are four *Trim-pon* quartered as follows:—

One at Chö-ten Kar-po, under the Chö-ten Kar-po *Da-lo-ye*.

One at Phari, under the direct orders of the *Tung-ling*.

One at Gyantse ditto ditto.

One at Khamba Jong ditto ditto.

The Chinese soldiers in Tibet are paid very highly, receiving —

- (1) 49 *trang-kas* = Rs. 16·6 a month;
- (2) one *Ta-dzin karu* (about 35 lbs.) of rice a month;
- (3) 15 *ngu-sangs* yearly to their parents in China;
- (4) weapons and a certain amount of uniform.

\* Thus, for instance, the detachment from Tra-ya (Dra-ya) in Kham which was employed in the campaign of 1904, was commanded by the lay official Pa-lhe-se and the ecclesiastical official Trakpa Len-den, who gave orders to the detachment through its own local Tra-ya officer.

† This official informed the British Trade Agent, Yatung, in September 1909 that he had 60 soldiers at Chö-ten Kar-po.

‡ Recent events (February 1910) have modified the information of Chinese Garrisons.



To return to the Regular Tibetan Army, the following are the military officials holding commands :—

- (1) There are six *De-pons* or *Dah-pons* ("Lords of the Arrow"), of whom the senior is known as *Mag-pon Chem-po*; two are stationed in

**Tibetan Military Officials.**

Lhasa, two at Shigatse, one at Gyantse and one at Dingri.\* They are lay officials holding 4th rank, and in addition to full military powers they also take part in the civil administration, the Tsang *De-pons* exercising as well a certain amount of supervision over the *Jongpens* of the province. Their pay is 18 *do-tse* (Rs. 1,998) a year, but they frequently receive a grant of land (*de-shi*) instead, which yields considerably more than the cash payment; their perquisites are also large.

- (2) There are two *Ru-pons* ("Masters of the Banners") under each *De-pon*: they are lay officials of the 5th rank, and their duties are purely military.

- (3) There are five *Gya-pons* under each *De-pon*, holding 6th rank.

- (4) There are ten *She-ngos* under each *De-pon*, holding 7th rank.

- (5) Over every ten soldiers is a *Chu-pon*, or Non-Commissioned Officer.

He is not of graded rank, but may rise as high as *Ru-pon*.

All grades below that of *De-pon* must rise from the ranks.

The paymasters of the army are known as *Po-pon*; in time of peace there are two, one lay official and one priest official, both holding 4th rank. In war time their number is increased to as many as may be considered necessary. The troops in Lhasa are paid twice a year, those in Shigatse, Gyantse, and Dingri once only. Each *Po-pon* tours in alternate years for this purpose, being accompanied by a deputy (*ku-tsap*) of the other. The money for the payment of the Nya-rong detachment is sent from Lhasa or arranged for in other ways.† The *Po-pons* also perform civil duties: they are supposed to be relieved every three years.

The rank and file of the Tibetan regular army is provided by the landlords, Government lists being maintained showing how many men each landlord is required to provide. The landlord is further required to furnish each soldier supplied by him with (1) a grant of land sufficient to yield an income of one *do-tse* (Rs. 111) a year, the soldier's family supplying the labour for the land, and (2) two complete outfits of clothing annually, one for summer and one for winter wear. These outfits cost about 6 *ngu-sangs* (Rs. 13-4) each.

As regards pay, each soldier of the U Province receives from Government 3 *ngu-sangs* (Rs. 6-10) a month, and each soldier in the Tsang Province somewhat less. The money is provided by the Po-kang Treasury in the manner already described in Chapter VIII.

The soldiers are called up for training twice a year, each training lasting but three or four days; they may, however, be called up at other times if any special reason (such as instruction in the use of a new rifle) warrants such a procedure. At other times the *De-pon* keeps only a fraction of his command,

**Training.**

\* Colonel Waddell states that one *De-pon* is stationed at the Tengri Nor to stop the approach of foreigners from the north. The statement requires corroboration.

† The troops at Nya-rong are under the orders of the Governor (*Chi-kyap*) of that Province. They are relieved every three years.



perhaps one-fourth, with him, and these attend to him in turns in parties of eight or ten. The Tibetan soldier, in fact, has hitherto been accustomed to lead a very easy life ; the greater part of his service appearing to be spent on leave.\*

The training comprises musketry, riding, and sham fights under the direction of the *De-pon*. The troops are

#### Inspections.

said to be regularly inspected by the *Amban* early in the year ; money and presents are awarded on these occasions for proficiency, and punishment for want of skill. The following extract from the official report of the *Amban* on his inspection of the troops in 1885 is interesting as showing the principle on which these rewards or punishments are meted out :—

“I held an inspection of the troops and have now to report that the three garrisons of Shigatse, Gyantse and Dingri, composed of Chinese and Tibetan troops, went through their various evolutions in good form, and their shooting, while not invariably excellent, was in fairly good style. Liberal rewards were bestowed on those who displayed special proficiency, and their names were recorded for promotion on the occurrence of vacancies. Those who were less deserving were given presents of silk, satin, pouches, knives, tea, etc., and the inefficient were publicly beaten upon the parade ground.†”

As expert military adviser, the *Amban* gives practical instruction on strategical questions concerning the defence of the country.

#### Strategical lectures.

#### Target practice.

The native explorer L— thus describes the performance of target practice at Shigatse :—

“Sometimes the soldiers went out for ball practice, having as a target a wall of considerable size : whenever the wall was struck by a bullet, a bugler concealed behind the wall (armed with an instrument about 6 feet long, straight, and with a huge bell-shaped mouth) blew a blast.”

The same authority also speaks of the field-training of the troops as being of a very useless character. It will, however, be seen later that this matter is receiving the attention of the Chinese military authorities.

The dress of the Tibetan army is scarcely a uniform in the general acceptation of the term ; but there are certain

#### Uniforms.

distinction between the different arms‡ and, in some cases, between different “regiments.” It appears that the basis of the soldier’s dress is a grey homespun woollen suit of varying hues ; the musketeers are supposed to wear a reddish waist-coat, the swordsmen one with a red border, and the bowmen white. Levies take the field in “mufti,” and have no uniform. Lieutenant G. Davys, I.M.S., who was in charge of

\* When the Gartok Expedition visited Shigatse Jong (of which the permanent garrison is said to be 1,000 men) in 1904, the fort was found to be deserted and all the troops reported to be on leave. It did not transpire whether this was the ordinary state of affairs, though possibly some special privilege leave had been granted to the garrison in recognition of their services in the campaign which had recently closed.

† From the *Peking Gazette*, 24th January 1886.

‡ The different “arms” in Tibet may be said to be cavalry (or Mounted Infantry), riflemen, swordsmen, and bowmen, but the four appear to be interchangeable ; if an infantryman buys a horse he becomes, *ipso facto*, a cavalryman. No special qualifications or training appear to be demanded for serving the guns in the various *Jongs*, and there is no such thing as a Corps of Artillery in Tibet.



the Tibetan wounded at Guru, notes the following distinctions between regiments:—

1st Lhasa Regiment.—Coat, grey; collar, 5 inches deep with red and blue squares and white triangles.

2nd Lhasa Regiment.—Similar to above, but collar 2 inches deep.

3rd Regiment.—Coat, blue; collar, as in 2nd.

4th Regiment.—Coat, blue; collar, blue and red squares.

All the men wear their hair in a pigtail, and shave the front of the head in Chinese style; as a head-dress, the ordinary Tibetan felt hat, with turned-up brim, is generally worn. In 1904 a few were still wearing iron helmets and cuirasses of mediæval type, as well as coats of chain-mail. The iron helmet of the cavalry was distinguished from that of the infantry by the wearing of a red tassel or a peacock's feather on the top instead of a cock's feather. The horses of some of the higher officers were also clothed in armour, and generally the horse-clothing and saddlery of the leaders was artistic and full of colour, with good carpet saddle-cloth, throat-rassels, and massive bits and stirrup-irons. The horses of the rank and file had generally loose, untidy girths, and bridles tied together with string. The tents are mostly made of flimsy white Manchester cotton imported through Calcutta, occasionally showing the maker's name, and decorated with lucky diagrams in blue cloth.

The commissariat arrangements consist principally in the collection of great quantities of supplies at the various *Jongs*. Orders issued by the *Jongpen* result in the production by the peasants of great quantities of *tsam-pa*, peas and other grains, fuel, grass, butter, salt, etc., which are stored for issue in time of war. Requisitions are made on a regular system called *dru-chak*, *mi-chak*, *ta chak*, etc., meaning grain, man, horse-requisition, as the case may be. On service a soldier receives a daily ration from these stores of barley, meal, and meat; the usual full ration for a month, per man, is 20 lbs. of barley-meal, one lb. of salt, and, if available, some yak's or sheep's flesh-meat, a sheep's bladder of butter, and half a brick of tea. When separated from these commissariat stores (i.e., on the line of march, etc.) troops live on the country, but a fortnight's supply of *tsam-pa* can be carried on the person without difficulty.

The weapons used in the Tibetan army are numerous. The infantryman

usually carries a match-lock or breech-loading rifle of modern pattern slung across his back; in his hand he generally holds a long spear; and from his belt there often hangs a long, ugly sword, one edged, with a straight, heavy blade. When there are not enough guns to go round, the remaining men carry bows and arrows (the latter of bamboo with barbed iron heads three inches long), also slings and heavy shields of wood, wicker work, or hide with iron bosses. Their flags and banners are triangular, with tufts of wool or yak's hair (dyed crimson and blue) tied to the tip of the staff. The horsemen are armed with matchlocks only as a rule, though some carry bows and arrows as well. The Tibetans excel as archers. The bow is a favourite weapon; the *De-pons* (or "Lords of the Arrow") wear, together with their subordinate officers, a thick ivory or bone ring on the left thumb to protect it from injury from the bow string. When the bow was replaced by the matchlock the latter was called the "fiae-arrow" (*men-da*) in order to preserve the name of the old weapon. The matchlocks are long and heavy iron pieces, with stocks fashioned roughly from any kind of wood



available, of an interior barrel-diameter of  $\frac{1}{2}$  to  $\frac{3}{4}$  inch. Their effective range is from 50 to 100 yards. To the fore-end is fixed, by means of a swivel, a double prong, 2 to 2½ feet in length, made either of wood tipped with iron or of antelope horns, which acts as a rest for the weapon. The larger matchlocks have no prongs, but are supported on the shoulder of a second man who stands in front with his back to the firer. Refills of powder for the matchlocks are done up in small paper parcels or in small-stoppered horn bottles, but the ammunition often consists of a loose charge of coarse black powder poured in by hand, over which is rammed a charge of slugs, bits of iron, or stones.

The Arsenal lies on the right bank of the Kyi Chu, and consists of a rectangular enclosure 55 yards by 40 yards

#### The Arsenal.

with 12-foot walls: along the walls inside are sheds, some enclosed and some open, in which are stored materials and machinery for the manufacture of arms and ammunition. When the place was visited in 1904, everything was found to be in confusion and the machines not in working order. The implements comprised five lathes, ten drills, of various sizes, a large horizontal drill worked by a fly-wheel, and a large quantity of English-made tools. All the machines are worked by hand. Apparently only charcoal is used for smelting purposes, and the output of the Arsenal probably amounts to no more than one rifle a day.

A large number of modern rifles of Lhasan make were found at Guru. These are of Martini action, and

#### Rifles.

made by two Muhammadan artisans from India; it appears that they make periodical visits to Calcutta and smuggle back the necessary materials. Some of these rifles have fairly well fitted backsights, and are effective up to about 1,200 yards, or more. Many of them consist of a local Martini lock adjusted to an old European-made barrel of discarded pattern. The cartridge cases are made of spirally-twisted brass plate, and during the fighting of 1904 it was possible to observe a very remarkable improvement in their manufacture. A few Russian rifles were also seen at Guru.

Derge is famous for its arms factory, and the Mantzu of Western Ssu-chuan are also said to be great gun-makers: thousands of serviceable gun-barrels are made in Somo and find a sale all over Tibet.

The British Trade Agent, Gyantse, reported in July 1909 that several Chinese gunmakers are said to have arrived at Lhasa lately.

The breech-loading and percussion *jingals* used by the Tibetans for the defence of the *Jongs* are of very primitive design. In bore they vary from

#### Guns.

1 inch to 3½ inches, throw missiles weighing from 3ozs. to 1lb., and have an extreme range of about 2,800 yards. At Gyantse it was found that the report of the *jingals* (firing at a range of about 1,400 yards) always preceded the ball sufficiently to allow of cover being taken, except in extreme cases of over-charge of powder. Most of the missiles directed at Chang-lo fell short, though a few of the weapons threw their projectiles with some degree of accuracy. When lead ran short, the missile consisted of a heavy stone wrapped in lead, and finally balls of pure copper were used. At one time *jingal* volleys were resorted to, fourteen or fifteen guns being fired in a ragged *feu-de-joie* at a given signal.

Gunpowder is manufactured chiefly at Chohakang in Kong-bo. The saltpetre for this is said to be obtained

#### Powder and Bullets.

to some extent artificially by nitrifying beds. Four samples of Tibetan gunpowder were submitted for analysis to



the cordite factory at Aruvankad; the powder was found to be much broken up—about half in fine dust, and the remainder in irregular unglazed grains. The moisture was rather high (but may possibly have been taken up in transit) and the saltpetre contained an appreciable amount of chlorides and insoluble matter. Altogether, the powder was poor in quality, the proportion of charcoal being high, and of sulphur low.\* The lead for bullets comes mostly from Ssu-chuan, though some is said to be imported from Nepal. The bullets are sometimes moulded, but many of those found on Tibetan prisoners in 1904 were evidently formed by pouring the melted lead into holes in the ground and then hammering the masses into a rounded shape. Many were also found to be of an expanding type, with a small stone as the nucleus.

Regarding the tactics employed by the Tibetans in the field, it has been noted that, when attacking, they almost invariably make a long night march and attack in the early dawn, attempting to surprise their foes by rushing the position or camp with yells, and using swords in preference to rifle fire. These tactics were attempted by them twice in the 1904 campaign—on the only two occasions when they attacked at all; on both occasions they got to close quarters, but, not having accomplished a surprise, they were beaten off by the heavy magazine fire which greeted them. Two night attacks were also made by the Tibetans in the Sikkim campaign of 1888. The leading of the men was generally half-hearted, and wanting in dash, but this was due to no lack of pluck, but rather to their early recognition of the superiority of our artillery and rifle fire. They displayed very little enterprise in attacking our line of communication or convoys, but once succeeded in ambuscading a small Mounted Infantry party. Though they were probably kept well-informed of our movements, the lack of mounted troops prevented them from attempting to cut in on our rear or making any demonstration by threatening our flanks, etc. As a rule, the Tibetans confine themselves to defensive operations and rely chiefly on the great natural and physical difficulties of their country to resist invasions and attacks. Their methods of strengthening position by the construction of walls has already been noticed in Chapter VI. The Tibetan is a most stubborn house to house fighter, and will often prefer certain death to surrender, fighting to the last. Like all undisciplined troops they are very sensitive to their flanks being threatened or turned. Under such circumstances, their defence rapidly weakens, but if completely surrounded they fight with the greatest tenacity and courage. Where the Tibetans chiefly failed in 1904 was in their lack of organisation, and they seemed unable to maintain any large body of men in one spot for any length of time, and consequently had their forces much split up, rendering themselves liable to be dealt with in detail. Their supply and transport arrangements were also very faulty, and they seemed to find great difficulty in collecting stores and moving them quickly.†

\* The detail of the analysis was as follows:—

Sample.	Moisture.	Sulphur.	Saltpetre.	Charcoal.
1	2.1	6.2	74.6	19.2
2	2.2	6.4	74.7	18.9
3	1.7	6.6	74.3	19.1
4	1.7	6.6	74.4	19.0

† Brigadier-General J. R. L. Macdonald's Report on the Tactical and Strategical questions affecting future operations in Tibet, No. 1584-A., dated 30th November, 1904. (Appendix D.)



There seems to be a fairly general consensus of opinion that the Tibetan

**Tibetan moral.**

soldier has no lack of pluck and endurance. Colonel Waddell writes, "The determination, resource, and bravery shown by the Tibetans in this fight (the storming of the Phalla outpost) should dissipate, once for all, the absurd delusion that the Tibetans cannot fight. Their daring is superb. They have little to learn in the matter of fighting behind defences and taking advantage of cover, and they know how to charge." Later he writes in a similar strain, "The bravery of the Tibetans was now beyond dispute. They courageously stood their ground when our shrapnel was bursting over them, and pluckily returned shot after shot to our guns, notwithstanding that few of their shots carried far, while our shells were seen to be inflicting much loss on them. They would make excellent soldiers if trained and led by competent officers." Other writers have expressed their admiration of Tibetan pluck in similar terms, but all agree that bad leadership and lack of proper organisation nullify the instinctive courage of the Tibetan soldiery. It remains to be seen whether the awakening of China from her apathy in regard to Tibetan affairs will provide the leaders, the organisation, the training, and the aptitude for war which will transform the Tibetan army from an undisciplined mob of negligible value into a force which will command respect in future operations.

The schemes for the reorganisation of the Tibetan army provide (as far as is known) for the following reforms:—

- (1) The raising of an additional force of 6,000 modern-drilled men, of

**Reorganisation of Tibetan Army.**

whom three-fifths are to be Chinese and two-fifths Tibetan.

The proposal received Imperial sanction in June 1907.

- (2) The raising of a further force of 5,000 Tibetans, with pay at the rate of sixty *ngu-sangs* a year. The Proclamation authorising the creation of this force was issued to the *Jongs* in March, 1908.

If these two additions to the Tibetan army are ever completed up to established strength, the numbers available for field service would appear to be as follows:—

Original <i>trap-chi ma-mi</i> . . . . .	6,000
Permanent Chinese Garrison . . . . .	2,000
Sino-Tibetan force (1907) . . . . .	6,000
Tibetan force (1908) . . . . .	5,000
	<hr/>
	Total Regulars 19,000*
<i>Don-ma</i> . . . . .	(about) 45,000
<i>Ser-ma</i> . . . . .	(about) 75,000
	<hr/>
Total (excluding <i>Chop-gye Truk-chu</i> )	139,000

\* The following figures regarding the total strength of Chinese and Tibetan regulars in Tibet were obtained in February 1909, but the British Trade Agent at Gyantse, who supplied the information, did not vouch for its accuracy:—

Station.	Tibetan.	Chinese (old style).	Modern-drilled Chinese.
at or near { Lhasa . . . . .	1,250	400	800 (without rifles).
{ Shigatse . . . . .	1,250	100	..
{ Gyantse . . . . .	625	..	..
{ Dingri . . . . .	625	40	..
Chumbi Valley . . . . .	..	110	..
In Chan . . . . .	..	110	..
Total . . . . .	3,750	760	800



- (3) A permanent establishment of Chinese drill-instructors. Thirty Chinese officers (trained in Japan) have arrived in Lhasa.
- (4) Appointment of Tibetans to cadetships at the Government Military Academy at Paoting Fu. Twenty Tibetan youths were despatched for a four years' course in 1937.
- (5) The establishment of a military training college in Lhasa. The proposed establishment of pupils is 39 Mongols, 10 tribesmen (presumably *Khampa* of Eastern Tibet), 20 Chinese, and 10 Tibetans, while the Nepalese Government is to be invited to send four Gurkha students. The course will last one year.
- (6) The creation of the appointment of Commander-in-Chief of the Tibetan army, carrying with it rank equivalent to that of the *Shap-pes*. The *Te-ling De-pon* was the first incumbent, but since his death, none has been appointed to succeed him, and it seems probable that the appointment will not be revived. The *Te-ling De-pon* received the distinction in recognition of his services during the campaign of 1904.
- (7) A new uniform. This is to be Chinese or semi-Chinese, with a peaked cap as head-dress.
- (8) The re-armament of the army with modern weapons. It appears

that large consignments of  
rifles of modern pattern have  
found their way to Lhasa from various quarters during the last  
few years. The number of these rifles now in the armouries of  
Lhasa has been estimated at 7,000 but no authoritative information  
is available on this point. The following is a tabulated statement  
of information received during the last two years regarding  
the arrival of arms in Lhasa, but its accuracy cannot be  
vouched for.

In November 1909 the British Trade Agent at Gyantse reported the strength of Regulars at Lhasa to be 3,500, *viz.* 1,000 Chinese, and the remainder Tibetans. Of these the Chinese were said to be armed with modern rifles, and the Tibetans with "inferior weapons."

#### *Importation of arms.*

Date.	Source of importation.	Number and Description of Arms.
Sept., 1906	Mongolia	Four camel-loads of rifles or ammunition. Pattern not stated.
Oct., 1906	Si-ning	Mannlicher Schonauer rifles, "in considerable numbers". Price at Lhasa is Rs. 500 to Rs. 600 per rifle with 200 to 300 rounds of ammunition. A rifle with 1,000 rounds and outfit for refilling cartridges is Rs. 1,000.*
May, 1907	"From the north" (probably Mongolia).	100 camel-loads of rifles. Pattern not stated.
July, 1907	Mongolia	13 boxes containing "Russian rifles."
Oct., 1907	Urga (per the Dalai Lama).	200 "breech-loading Russian rifles," with magazine containing 8 rounds.
March, 1908	Cheng-tu	500 "Chinese magazine rifles," each containing 9 cartridges at a time, with 272 boxes of ammunition and 16 boxes of bayonets.
March, 1908	China	200 rifles and 300 carbines. Pattern not stated.
October, 1908	China	300 "Foreign" rifles, "each holding nine bullets."

\*The approximate price of the same rifle with 1,000 rounds of ammunition in Calcutta is Rs. 500.



The different lines of advance on Lhasa from British territory have been briefly referred to in Chapter V. A report drawn up by Brigadier-General Macdonald in November 1904, on the tactical and strategical questions affecting future operations in Tibet, treats the matter in greater detail, and is quoted in full in Appendix D.

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NOTE.—While every endeavour has been made to make the above list as comprehensive as possible for ordinary requirements, it is nevertheless far from complete. Numerous articles, essays, and papers from the *Journal of the Royal Geographical Society* and foreign Geographical Societies have been omitted; nor has any mention been made of the many official reports, pamphlets, despatches, etc., which have been utilised in the compilation of this Report. It has also been thought advisable to omit the titles of works which are only incidentally connected with Tibet, while the inclusion of such books as *Savage Landor's In the Forbidden Land* (though dealing directly with Tibet) has been studiously avoided.

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## APPENDIX B.

### RULES FOR THE PHONETIC TRANSCRIPTION INTO ENGLISH OF TIBETAN WORDS.

The Tibetan system of spelling is so peculiar and so complicated that a mere transliteration of a given word into English characters gives no idea whatever of the correct pronunciation. This fact probably accounts in a great measure for the wide divergences to be found in the spelling of place-names in existing maps of Tibet. Scarcely any two maps will be found to correspond; and in some cases the differences are so great as to render the identification of a particular place in two separate maps almost impossible. This grave inconvenience may be obviated, at any rate in maps published officially, by the adoption of a simple system of transcription, based on the recognised rules of Tibetan orthography, which will produce a word in English characters of the approximately correct sound. It is impossible to re-produce the *exact* Tibetan pronunciation in Roman characters: the Tibetan language has tones and shades of expression peculiar to itself which can only be learnt by oral instruction. It is merely misleading to attempt to re-produce them in any European system of spelling.

#### Consonants.

There are 30 consonants in the Tibetan alphabet. They are:—

	Name.	Represented in Roman character by	REMARKS.
ཀ	Ka . . .	K . . .	} There is a difference only in tone between these two letters.
ཁ	Kha . . .	K . . .	
ག	Ga . . .	G . . .	} This letter also is sometimes pronounced K,—see Rules below. In common use. Pronounced, when an initial, like the ng in "King" with "a" added as: "King-a."
ང	Nga . . .	Ng . . .	
ཅ	Cha . . .	Ch . . .	} There is a difference only in tone between these two letters.
ཆ	Ch'a . . .	Ch . . .	
ཇ	Ja . . .	J . . .	} This letter also is sometimes pronounced Ch,—see Rules below.
ཉ	Nya . . .	Ny . . .	
ཏ	Ta . . .	T . . .	} There is a difference in tone only between these two letters.
ཐ	T'a . . .	T . . .	
ད	Da . . .	D . . .	} This letter also is sometimes pronounced T,—see Rules below.
ན	Na . . .	N . . .	
པ	Pa . . .	P . . .	} There is a difference in tone only between these two letters.
ཕ	P'a . . .	P . . .	
བ	Ba . . .	B . . .	} This letter also is sometimes pronounced P, and sometimes W,—see Rules below.
མ	Ma . . .	M . . .	
ཚ	Tsa . . .	Ts . . .	} There is a difference in tone only between these two letters.
ཛ	Ts'a . . .	Ts . . .	
ཌ	Dza . . .	Dz . . .	} This letter also is sometimes pronounced Ts,—see Rules below.



	Name.	Represented in Roman character by	REMARKS.
ཨ	Wa . . .	W . . .	Rarely used.
ཅ	Sha . . .	Sh . . .	
ཆ	Sa . . .	S . . .	
ཇ	Ah . . .	A . . .	A basis for vowels.
ཉ	Ya . . .	Y . . .	Only used as an initial.
ར	Ra . . .	R . . .	
ལ	La . . .	L . . .	
ཤ	Sha . . .	Sh . . .	
ས	Sa . . .	S . . .	
ཧ	Ha . . .	H . . .	
ཏ	Ah . . .	A . . .	Only used as an initial. A basis for vowels.

Each consonant carries with it the inherent sound of A.

Thus the word “ལ” La.

(The dot, called “tsak,” must follow each syllable, separating it from the next.)

This is the simplest form of trans-literation which can be adopted. It is useless to attempt to discriminate in English characters between such sounds as ལ and ཏ, etc.

In certain combinations and situations the sounds of these simple letters are affected. The rules for these changes are given below.

### Vowels.

There are 5 vowels. They are :—

A, I, U, E, O,  
in the above order.

A. The sound of A is inherent in each consonant and so the vowel is not written except—

(a) when an initial. In this case it is represented by—

ཨ or ཏ

Ex. ཨ་མ་ A-Ma (but).

ཏ་མ་ A-Ma (mother).

(b) when the sound “A-i” is required at the end of a syllable. In this case ཨ is added to the syllable and the vowel sign of I superposed. Similarly with “A-o,” “A-u.”

Ex. མཱི Ma-i (of the mother).

(c) ཨ is used as final of a two (or more) character syllable in cases where only the last letter of the syllable is to be sounded—the prefixed letters being silent (*see* Rules below).

Ex. མདྲཱ Mda. Pronounced Da (an arrow).

I, E and O are represented by the signs ཨྲ ཨླ ཨྵ written over the consonant.

U is represented by the sign ཨྶ written under the consonant.

The simple vowel sounds also are subject to modifications which will be noted below.

Besides the simple consonants there are in Tibetan certain double and triple characters formed by the junction of two or three letters. They are as follows. It will be observed that in certain cases the sound of the simple character is materially altered.



## Double Characters.

	Transliteration.	Represented in Roman characters by		Transliteration.	Represented in Roman characters by	
Y subjoined.	ਕ	Kya .	ਕ	Lha .	Lha .	H subjoined.*
	ਕ	Kya .	ਕ	ਕ	La .	L subjoined.
	ਗ	Gya .	ਗ	ਗ	La .	
	ਪ	Pya .	ਪ	ਪ	La .	
	ਚ	Cha .	ਚ	ਚ	La .	
	ਬ	Bya .	ਬ	ਬ	La .	
	ਮ	Mya .	ਮ	ਮ	Da .	
R subjoined.	ਕ	Kra .	ਕ	Rka .	Ka .	R superscribed.
	ਕ	Kra .	ਕ	Rga .	Ga .	
	ਗ	Gra .	ਗ	Rnga .	Nga .	
	ਪ	Tra .	ਪ	Rja .	Ja .	
	ਚ	Tra .	ਚ	Rnya .	Nya .	
	ਬ	Dra .	ਬ	Rta .	Ta .	
	ਮ	Nra .	ਮ	Rda .	Da .	
	ਨ	Pra .	ਨ	Rna .	Na .	
	ਨ	Pra .	ਨ	Rba .	Ba .	
	ਨ	Bra .	ਨ	Rma .	Ma .	
	ਨ	Mra .	ਨ	Rtsa .	Tsa .	
	ਨ	Shra .	ਨ	Rdza .	Dza .	
	ਨ	Sra .	ਨ			
L superscribed.	ਕ	Hra .	ਕ	Ska .	Ka .	S superscribed.
	ਕ	Lka .	ਕ	Sga .	Ga .	
	ਕ	Lga .	ਕ	Snga .	Nga .	
	ਕ	Lnga .	ਕ	Snya .	Nya .	
	ਕ	Lcha .	ਕ	Sta .	Ta .	
	ਕ	Lja .	ਕ	Sda .	Da .	
	ਕ	Lta .	ਕ	Sna .	Na .	
	ਕ	Lda .	ਕ	Spa .	Pa .	
	ਕ	Lpa .	ਕ	Sba .	Ba .	
	ਕ	Lba .	ਕ	Sma .	Ma .	
	ਕ	Lha .	ਕ	Stsa .	Tsa .	

\*There are other characters which have H subjoined. This is the only one in common use.



### Triple Characters.

Triple characters are a combination of a simple letter with other letters both subjoined and superscribed. They take the pronunciation given by the *subjoined* letter in accordance with the above table.

Ex. ལྷ = Spyā. Pronounced "Cha."

ལྷྱ = Spra. Pronounced "Tra."

### Reverse Letters.

There are 6 reverse letters. They are :—

ཏ = T reversed. Pronounced Tra.

ཐ = T reversed. Pronounced Tra.

ད = D reversed. Pronounced Dra.

ན = N reversed. Pronounced Na.

ཤ = Sh reversed. Pronounced Ka.

ཎ = K-sh reversed. Pronounced Kya.

N.B.—The sounds represented in the above tables by "Tra" and "Dra" cannot be exactly reproduced in Roman characters. This is the nearest approach which can be made towards phonetic spelling.

We now come to the Rules which affect the pronunciation of the various consonants and vowels in combination.

### Prefixes.

There are 5 prefixes. They are :—

ག = G, ད = D, བ = B, མ = M and འ = A.

These are silent—

(a) In all syllables comprising three or more characters.

Ex. གསང = Gsang. Pronounced Sang (secret).

བདག = Bdag. Pronounced Dag (self).

ངུལ = Dngul. Pronounced Ngul (silver).

འཁོར = Akor. Pronounced Kor (a circle).

(b) In syllables of two characters when the second character bears a vowel, mark or is a double or triple character.

Ex. འདི = Adi. Pronounced Di (this).

བཞུ = Brla. Pronounced La (the thigh).

### Affixes.

The affixes are the last letters in a word or syllable. Ten letters only are used as affixes. They are :—

ག = G, ང = Ng, ད = D, ན = N, བ = B, མ = M.

འ = A, ར = R, ལ = L, ས = S,

[Of these ད (D) and ས (S) are silent.\*

Ex. རྩས = Tses. Pronounced Tse (date).

The others are all sounded although some are practically inaudible.

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\* ས (s) is also used at a *second* final after ག (G) in which case also it is silent.

Ex. བགས་པ = Pags-pa. Pronounced Pak-pa (skin).



### Initials and Finals.

The following letters when standing as initial letter in a word or syllable lose their hard sound and are pronounced as shewn—

ཀ (G) is pronounced K.

ཁ (J) „ „ Ch.

ད (D) „ „ T.

བ (B) „ „ P.

ཅ (Dz) „ „ Ts.

Ex. ཀང་ = gang. Pronounced “Kang” (what).

ཕ་ = bu. Pronounced “pu” (son).]

Whilst ཀ (G) and བ (B) when final letter of a word or syllable are pronounced generally K and P, and should be so transliterated.

### Special Rules for བ (B).

བ (B) is a troublesome letter. As noted above it is pronounced “P” when an initial or a final, and is silent when a prefix. Other rules affecting it are :—

(a) When initial letter of the 2nd, 3rd, or 4th syllable of a word it is pronounced “Wa.”

Ex. ཡོང་བ་ = Yong-ba. Pronounced “Yong-wa” (to come).

(This rule is subject to some exceptions.)

(b) When preceded by prefix ད (D) (which is silent) and unaccompanied by vowel mark or subjoined letter it is sounded “Wa.”

Ex. དབང་ = Dbang. Pronounced “Wang” (power).

(c) After prefix ད (D) when accompanied by a vowel sign or by Y or R subjoined, it drops out of pronunciation altogether.

Ex. དབུ = Dbu. Pronounced U (Head).

དབྱི = Dbyi. Pronounced Yi (a lynx).

### Vowels.

The 5 vowels are pronounced as their equivalents in Roman characters following the Hunterian method, or the Rule for the orthography of geographical names as given in the Royal Geographical Society’s “Hints to Travellers”) except in the following cases :—

(a) When the final letter of a syllable is ད (D) ལ (L) or ས (S). These 3 letters are silent (see above), but in dropping out of pronunciation they affect the 3 vowels A, U, and O, which are then pronounced respectively as E, U, and Ö.

[The sound which I have represented by ü resembles as nearly as possible the French “u” as, for example, in the word “mur”; the sound of ö exactly resembles the French “eu” in “peu.”]

Ex. ནད་ = Nad. Pronounced Ne (disease).

ལུ་ = Lus. Pronounced Lū (the body).

བད་ = Bod. Pronounced Pö (Tibet).

(b) When the final letter of a syllable is ན (N) this letter is sounded, but nevertheless it modifies the 3 vowels A, U, and O, in the same manner as do final ས and ད.

Ex. མོན་ = Mon. Pronounced Mön (low-land).



Finally, all words of more than one syllable should be syllabilised by means of a dash inserted between the syllables which would take the place of the dot used in Tibetan writing.

Ex. ལ་ས = Lha-sa.

These are the principal rules reduced to the simplest possible form, and although at first sight they may appear complicated, they are very soon learnt by practice. Their application to the spelling of geographical names in future maps and works on Tibet would ensure uniformity and a fairly correct approximation to the real sound. Any educated Tibetan can write the name of any given place in the Tibetan, "Uchen" character as used above; and its transcription into Roman character by the light of the above rules will produce the required result.

W. F. O'CONNOR, *Captain, R.A.*

DARJEELING;

*The 21st April 1903.*



## APPENDIX C.

## TIBETAN GLOSSARY BY C. A. BELL, I.C.S.

## GENERAL NOTES.

## I.—PRONUNCIATION.

(a) All Roman letters, both consonants and vowels, to be pronounced according to the scientific spelling of Indian names prescribed by Government. Z to be pronounced as Z in English. Ts to be pronounced in one breath, as in "rats."

(b) Ö and Ü to be pronounced as in German or as *eu* in French *peu* and *u* in French *sur* respectively.

(c) *r* immediately following another consonant is to be pronounced less strongly than in English. When preceding *o* and *u* it is pronounced more strongly than when preceding *a*, *e*, or *i*.

(d) The pronunciation followed is that of the Lha-sa dialect.

## II.—RIVERS.

Rivers, if large, are usually called Tsang-po, if small, Chu, coupled with the name of the country through which they pass, *e.g.*, Shi-ga-tse tsang-po, "the Shi-ga-tse river"; Nyang Chu, "the stream passing through the Nyang country," and so on.

## III.—RANKS.

There is no rank below the 7th, the 1st and 2nd ranks have no political power.

## IV.—NAMES OF PERSONS.

Two are usually joined together, *e.g.*, Sö-nam Tem-pa. For women, one man's name and one woman's name is often given.

## Tibetan Glossary.

Word.	Meaning.
AM-BAN . . . . .	Chinese Resident at Lha-sa.
AM-MO-CHU . . . . .	See Tor-sa.
A-BI . . . . .	A district in Kham, 12 days east of Lha-sa.
CHAM . . . . .	Usually followed by ku-sho. The title is given to wives of officials from the 4th rank downwards and of Ger-pas.
CHAM-CHU . . . . .	Man's name.
CHAM-DO . . . . .	A country 2½ months east of Lha-sa.
CHAM-PA . . . . .	Man's name.
CHANG-DSÖ-PA . . . . .	Treasury officer in charge of State property. Fourth rank. There are six, of whom three are directly attached to the Da-lai La-ma.
CHANG-KONG . . . . .	Name of a noble family in Tibet.
CHANG-TANG . . . . .	A province north of Lha-sa, high, cold and infertile.
CHE-MA . . . . .	A termination meaning "desert," <i>e.g.</i> Sam-ye Che-ma, "the Sam-ye desert."



Word.	Meaning.
CHE-NGA . . . . .	Man's name.
CHI-GYE . . . . .	A coin equal to three annas.
CHI-ME . . . . .	Man's name.
CHI-PÖN CHEM-PO . . . . .	Superintendents of stables of Da-lai and Tra-shi La-mas. Laymen.
CHÖ-DE . . . . .	Man's name.
CHÖ-DOR . . . . .	Man's name.
CHÖ-DRÖN . . . . .	Woman's name.
CHOK-KYI . . . . .	Woman's name.
CHÖ-KU . . . . .	Man's name.
CHÖ-KYI . . . . .	Woman's name.
CHO-LE . . . . .	Man's name.
CHOM-PE . . . . .	Man's name.
CHÖ-NANG . . . . .	Man's name.
CHÖN-DEN . . . . .	Man's name.
CHÖN-DZOM . . . . .	Woman's name.
CHONG-GYE . . . . .	District with dzong in Ü, 4 days south of Lha-sa.
CHÖ-PÖN KHEM-PO . . . . .	High priest in attendance on great la-mas especially Da-lai and Tra-shi La-mas, in which case he holds 4th rank.
CHÖ-SANG . . . . .	Man's name.
CHÖ-TAR . . . . .	Man's name.
CHÖ TEN . . . . .	A religious edifice in which the remains of the dead are sometimes deposited. It also represents the holy symbols of the Buddhist doctrine.
CHÖ-TRA . . . . .	Man's name.
CHÖ-TRUP . . . . .	Man's name.
CHUM-BI . . . . .	Village in Chum-bi Valley.
CHU-SHÜ . . . . .	District with dzong in Ü, 2 days west of Lha-sa.
CHI-KYAP KEM-PO . . . . .	The monk-minister of the Head Council at Lha-sa. Third rank.
CHO-KANG . . . . .	Large temple in the centre of Lha-sa containing a famous image of Buddha.
CHO-MO . . . . .	District with dzong in Kong-po, 12 days east of Lha-sa.
CHÖP-GYE TRUK-CHU . . . . .	Militia reserve consisting of all males between the ages of 18 and 60 not previously called out.
CHU-PÖN . . . . .	Officer over 10 soldiers. Layman.
DA-LAI LA-MA . . . . .	Pronounced Ta-le La-ma. Spiritual and secular head of Tibet. Resides at Lha-sa.
DA-LO-YE . . . . .	Aide-de-camp to the Chinese Resident at Lha-sa.
DA-PA . . . . .	District with dzong, 3 weeks west of Shi-gatse under Lha-sa Government.
DA-WA . . . . .	Man's name.
DED RA-JA . . . . .	The secular head of Bhutan. Has no power at present.
DE-CHANG-PA . . . . .	Head treasurers of Tra-shi La-ma's Government, 4th rank. There are four of them.
DE-CHEN . . . . .	District with dzong in Ü, two days east of Lha-sa.
DE-CHU . . . . .	Otherwise known as Jaldhaka. A river on the boundary between Bhutan and Darjeeling district.



Word.	Meaning.
DE-KYI . . . . .	Woman's name.
DE-LE . . . . .	Man's name.
DE-MO . . . . .	Title of the La-ma of the Ten-gye-ling monastery at Lha-sa.
DE-NANG . . . . .	Name of a noble family in Tsang.
DE-PÖN (1) . . . . .	Officer over about 1,000 to 1,500 Tibetan troops. There are two in Ü, and four in Tsang. Fourth rank. Laymen.
DE-PÖN (2) . . . . .	Title of nobility held by noble families of Lha-sa.
DER-GE . . . . .	Province, 3½ months north-east of Lha-sa.
DHAR-MA-RA-JA . . . . .	The spiritual head of Bhutan. Has no power at present.
DÖ-CHUNG . . . . .	District with dzong in Tsang, 2 days south of Shi-ga-tse. Under Lha-sa Government.
DONG-KYA LA . . . . .	Pass between North Sikkim and Tibet.
DONG-PU . . . . .	Man's name.
DÖN-MA . . . . .	Militia consisting of all able-bodied laymen of Tibet.
DO-RING . . . . .	Name of a noble family of Lha-sa.
DOR-JE . . . . .	Man's name.
DOR-JE PHA-MO . . . . .	A female incarnation of a goddess residing on the shore of the Yam-dro Lake as Abbess of the Sam-ding Monastery.
DO-TSE . . . . .	A sum of money equal to about one hundred and twenty-five rupees.
DRA-GAR . . . . .	A dzong in east Bhutan under the Trong sa Pön-lop.
DREN-JONG . . . . .	Tibetan name for Sikkim.
DRE-PUNG . . . . .	Monastery near Lha-sa containing 7,700 Monks.
DRIM-DZO . . . . .	Cross-breed between an ordinary bull and a cow-yak.
DRÖ-KA . . . . .	Woman's name.
DROK-PA . . . . .	Nomadic herdsmen, most of whom live in the Chang-tang.
DRO-MA . . . . .	Woman's name.
DRO NYER CHEM-PO . . . . .	A sort of head aide-de-camp to the Dalai La-ma and Tra-shi La-ma. Fourth rank. Monk.
DRUNK-DRA . . . . .	Man's name.
DRUK-GYEL . . . . .	A dzong in Bhutan.
DRUK-PA . . . . .	Tibetan name for Bhutanese.
DRUK-YÜ . . . . .	Also called Druk-lung-pa. Tibetan name for Bhutan.
DZA-MA . . . . .	Sub-division of Nak-chu district, 12 days from Lha-sa.
DZA-SA . . . . .	Hereditary position in 2nd rank given by Emperor of China.
DZI . . . . .	A country, 2½ months south-east of Lha-sa. Divided into Diz-to (upper DZI) and DZIME (lower DZI).
DZO . . . . .	Cross-breed between a bull-yak and an ordinary cow.
DZO-GANG . . . . .	District with dzong in Kam, 25 days south east of Lha-sa.
DZOM-PA . . . . .	Woman's name.



Word.	Meaning.
DZONG . . . . .	Often spelt Jong. Fort at head-quarters of each district forming residence of District Officer. Where a 'dzong is to be referred to, add the word dzong to the name of the district concerned; e.g., Kam-pa-dzong, dzong of the Kam-pa district, and so on.
DZONG-GA . . . . .	Dzong about a fortnight south-west of Shi-ga-tse.
DZONG-NYER . . . . .	A sort of steward to a Dzong-pon, who sometimes also acts for the Dzong-pa during the latter's absence.
DZONG-PÖN . . . . .	District Officer, i.e., the officer, monk or layman, in charge of a dzong and the surrounding district. The more important dzongs often have two Dzong-pöns.
DZONG-SHI . . . . .	Estates or jagirs given to Dzong-pön instead of salary.
GA-LING-KA . . . . .	Village in Chumbi Valley.
GAN-DEN . . . . .	Monastery near Lha-sa, containing 3,300 monks.
GANG-TOK . . . . .	Capital of Sikkim.
GA-PA . . . . .	District in Kham, 3½ months north east of Lha-sa.
GA-SER . . . . .	District with dzong in Bhutan.
GE-LEK . . . . .	Man's name.
GE-LUK-PA . . . . .	The reformed sect of Tibetan Buddhists to which the Da-lai and Tra-shi La-mas and a large number of the people belong.
GEM-PE U-TSE . . . . .	Mountain within 1 or 2 miles of Lha-sa.
GEM-PO . . . . .	Headman of a village.
GEN-DUN . . . . .	Man's name.
GER-PA . . . . .	A land-owner.
GE-SHE . . . . .	Term applied to monks of the Ge-luk-pa sect, who have mastered certain branches of learning.
GIP-MO-CHI . . . . .	See Gye-mo-chen.
GNA-TONG . . . . .	Place in East Sikkim. Formerly a British cantonment. Pronounced Na-thang.
GÖ-KAR-LA . . . . .	Pass between Lha-sa and Sam-ye, one day south of Lha-sa.
GO-LE . . . . .	Man's name.
GU-KI . . . . .	District with dzong, one month west of Shi-ga-tse under Lha-sa Government.
GYA-KAR . . . . .	Tibetan name for native of India.
GYA-ME-TO-TANG . . . . .	Large plain, 12 days south-east of Lha-sa.
GYA-MI . . . . .	Tibetan name for a Chinaman.
GYA-NAK . . . . .	Tibetan name for China.
GYANG-TSE . . . . .	District with large town and dzong. Junction of trade routes to Lha-sa, Shi-ga-tse and Pha-ri. Two days south-east from Shi-ga-tse. Under Lha-sa Government.
GYA-PÖN . . . . .	Officer over 100 soldiers. Sixth rank. Layman.
GYA-TANG . . . . .	Tibetan name for India.
GYA-TSA . . . . .	District with dzong in Tak-po, 8 days south east from Lha-sa.
GYA-U-GANG . . . . .	Tract of country in North Sikkim.
GYE-MO . . . . .	Woman's name.



	Word.	Meaning.
GYE-MO-CHEN	. . . .	A mountain at the tri-junction of Sikkim, Bhutan and Tibet. Often spelt Gip-mo-chi.
GYEN-TSEN	. . . .	The Buddhist banner of victory. Also a man's name.
GYE-PO	. . . .	Man's name.
HA	. . . .	District with dzong in Bhutan under Pa-ro Pön-lop.
HOR-KANG	. . . .	Name of a noble family in Lha-sa.
HRI-TAR	. . . .	Man's name.
JAM-PE	. . . .	Man's name.
JE-GÖN-DO	. . . .	Monastery in Ga-ba district, 3½ months from Lha-sa.
JEY-LAP	. . . .	Pass between Sikkim and Chum-bi valley. Pronounced Dze-lep.
JIM-PA	. . . .	Man's name.
JONG	. . . .	See Dzong.
KA-LÖN	. . . .	See Shap-pe.
KA-CHA	. . . .	A coin equal to five annas.
KA-KANG	. . . .	A coin equal to one anna.
KHAM	. . . .	An extensive province or collection of provinces in Eastern Tibet ranging from Ü on the west to China on the east.
KAM-PA	. . . .	District with dzong in Tsang Province near Sikkim frontier under Government of Ta-shi Lhun-po.
KAM-PA LA	. . . .	Pass between Ü and Tsang. It has to be crossed in going from Lha-sa to Shi-gatse, Gyangtse or Darjeeling.
KAN-DRO	. . . .	Woman's name.
KAN-DRÖN	. . . .	A sort of aide-de-camp of the Head Council. Four laymen. Sixth rank.
KANG	. . . .	Measure of land, taking about three yak loads of barley to sow it.
KAP-CHE	. . . .	A measure of money equal to half-an-anna.
KAR-MA	. . . .	Man's name.
KAR-MA-NGA	. . . .	A coin equal to two annas.
KA-SHA	. . . .	Council House of the Head Council at Lha-sa.
KA-SHA SHÖ-PA	. . . .	Clerks and messengers of the Head Council. Three laymen. Seventh rank.
KA-TA	. . . .	Ceremonial scarf used for visiting and enclosed in letters as a form of salutation.
KA-TRUNG	. . . .	Secretary of Head Council. Two. 6th rank. Laymen.
KA-TSA-BA	. . . .	Term applied to children of Tibetan mothers by Nepalese fathers.
KA-ZI	. . . .	An honorific title given chiefly to some landlords and magistrates in Sikkim and Bhutan.
KE	. . . .	A measure of grain equal to about 40 lbs.
KE-MA	. . . .	Supply of ponies, mules, etc., for carrying baggage of Government officials on tour and travellers authorised to demand it.
KEN-CHEN	. . . .	Title given to monks. 4th rank. There is no fixed number of these, but there are usually about ten.



Word.	Meaning.
KEN-CHUNG . . . . .	Title given to monks, slightly-inferior to ken-chen, but in the 4th grade. There is no fixed number of these, but there are usually about 40.
KE-SANG . . . . .	Man's name.
KO-KO . . . . .	Term applied to Chinamen and sons of Tibetan mothers by Chinese fathers. Applied only to such as are of no rank and up to the age of 40 or 50, after which they are known as Pa-pa.
KÖN-CHO . . . . .	Man's name.
KONG-PO . . . . .	A province 7 days east of Lha-sa. Divided into upper and lower Kong-po. Lower Kong-po is sub-tropical and rainy, growing maize and similar crops.
KONG-RA LHA-MO . . . . .	Pass between North Sikkim and Tibet.
KOR-KA . . . . .	Tibetan name applied to most tribes of Nepalis.
KUM-BUM . . . . .	A large monastery in Mongolia.
KÜN-DE-LING . . . . .	Monastery in Lha-sa. One of the four from which a Regent of Tibet is chosen.
KUNG . . . . .	Hereditary position with salary given by Emperor of China. First rank. There are four Kungs. No power.
KÜN-GA . . . . .	Man's name.
KUNG-KAR . . . . .	District with dzong in Ü, 2 days south of Lha-sa.
KU-RO NAM-GYEL . . . . .	District with dzong in Tak-po, 12 days south-east of Lha-sa.
KU-SHO . . . . .	Title given to officials and ger-pas. Somewhat like English "Sir."
KYAP-CHA . . . . .	District with dzong in Bhutan under a Pön-lop, who is under the Tim-pu Dzong-pön.
KYA-PING CHEM-PO . . . . .	Chief Minister of Tsang. Resident at Ta-shi Lhun-po. Holds 1st rank. Monk.
KYI-CHU . . . . .	River on which Lha-sa is situated.
KYIN-DONG . . . . .	District with dzong in Tak-po, 11 days south-east of Lha-sa.
KYIN-DZOM . . . . .	Woman's name.
KYI-PA . . . . .	Woman's name.
KYI-RONG . . . . .	District with dzong, 18 days west of Shi-gatse under Lha-sa Government.
LA . . . . .	A mountain pass. Also an honorific termination corresponding somewhat to English "Mr.," e.g., Ko-ko La, etc.
LA-CHEN . . . . .	A tributary of the Teesta river.
LA-CHUNG . . . . .	A tributary of the Teesta river.
LEK-DEN . . . . .	Man's name.
LEK-PA . . . . .	Man's name.
LE-NYI . . . . .	Man's name.
LHA-CHAM . . . . .	Usually followed by Ku-sho; title given to wives of 3rd rank and above, and to wives of 4th rank officials, when the latter of very high family.
LHA-CHEN . . . . .	Man's name.
LHA-DING . . . . .	Name of a noble family of Lha-sa.
LHAK-CHUNG . . . . .	Man's name.
LHAK-PA . . . . .	Man's name.



Word.	Meaning.
LHA-LU . . . . .	Name of a noble family of Lha-sa.
LHA-MO . . . . .	Woman's name.
LHAN-DEN . . . . .	Man's name.
LHA-RI . . . . .	District with dzong in Kam, 13 days east from Lha-sa.
LHA-SA . . . . .	Pronounced Hla-sa. Capital of Tibet in general, of Ü province in particular.
LHA-TSE . . . . .	District with dzong in Tsang, 4 days west from Shi-ga-tse under Government of Ta-shi Lhün-po.
LHA-TSE-RING . . . . .	Man's name.
LHA-WANG . . . . .	Man's name.
LHO-DZONG . . . . .	District and dzong (which is also called Lhodzong) in Kam, 2½ months east of Lhasa.
LHO-LING . . . . .	Name of a noble family in Tsang.
LHÖN TRUP . . . . .	Man's name.
LHO-RA . . . . .	District with dzong, 10 days south of Lha-sa.
LHÜN-TRUP-TSE . . . . .	District with dzong in Bhutan under Tong-sa Pön-lop.
LO-KAR-PO . . . . .	Country, 1½ months south-east of Lha-sa.
LO-NAK-PO . . . . .	Country 2 months south-east of Lha-sa.
LON-DEN . . . . .	Man's name.
LOP-SANG . . . . .	Man's name.
LOSTA-WA . . . . .	Country 2 months south-east of Lha-sa.
LO-TRÖ . . . . .	Man's name.
MANG-KAM . . . . .	District with dzong in Kam, 1½ months east of Lha-sa.
ME . . . . .	A termination meaning lower, <i>e.g.</i> , Po-me, "Lower Po."
MI-HRANG . . . . .	Supply of coolies for Government officers on tour or travellers authorised to demand in.
MING-MA . . . . .	Man's name.
MI-PÖN . . . . .	Magistrates of Lha-sa. There are two Mi-pöns. Laymen. Fifth rank.
MI-TRO KUN-GAR . . . . .	District with dzong in Ü, 3 days east of Lha-sa.
MO . . . . .	A termination meaning a female, <i>e.g.</i> , Dzo-mo (Cow-dzo), and so on.
MÖ-LAM . . . . .	Man's name.
NAK-CHU . . . . .	District with dzong, 10 days north of Lha-sa.
NA-KONG . . . . .	Country, 3 months east of Lha-sa.
NAM-GYEL . . . . .	Man's name.
NAM-GYEL TRA-TSANG . . . . .	The Da-lai Lama's place of worship in Po-ta-la.
NAM-KAR-TSE . . . . .	District with dzong in Tsang province between Gyang-tse and Lha-sa, 4 days from Lha-sa. Under Lha-sa Government.
NAM-LING . . . . .	District with dzong, 1½ day's journey north of Shi-ga-tse. Under Lha-sa Government.
NAM-SE-LING . . . . .	Name of a noble family of Lha-sa.
NAM-TSE . . . . .	Country in Sikkim, 2 days from Gang-tok.
NAM-TSO . . . . .	Woman's name.
NANG-TSE SHAN . . . . .	Court of the Magistrates (Mi-pön) of Lha-sa.



Word.	Meaning.
NA-TANG . . . .	<i>See</i> Gna-tong.
NE-CHUNG TRA-TSANG . . . .	Monastery with oracle a few miles out of Lha-sa.
NE-DONG . . . .	District with dzong in Ü, 3 days south of Lha-sa.
NE-WAR . . . .	A tribe of Nepalis, who held the sovereignty of Nepal before the present Gurkha dynasty, and of whom there are large numbers in Lha-sa, chiefly as shopkeepers.
NGA-CHO . . . .	Woman's name.
NGAM-RING . . . .	District with dzong, 7 days west from Shiga-tse. Under Government of Ta-shi Lhün-po.
NGA-PHÖ . . . .	Name of a noble family of Tibet.
NGA-WANG . . . .	Man's name.
NGÖ-TRUP . . . .	Man's name.
NGÜ-SANG . . . .	A sum of money equal to about two rupees eight annas.
NOR-PU . . . .	Man's name.
NO-YÖN . . . .	Paymaster of the monks in the Ta-shi Lhun-po monastery. 5th rank. Monk.
NYA-KA . . . .	A weight equal to about half a pound.
NYA-NAM . . . .	District with dzong, south-west of Shiga-tse and near Nepal frontier. Under Lha-sa Government.
NYA-NYA . . . .	Term applied to daughters of Tibetan women by Chinese fathers.
NYA-RONG . . . .	Country with several dzongs, 3½ months from Lha-sa.
NYA-TUNG . . . .	<i>See</i> Ya-tung.
NYER-TSANG-PA . . . .	Treasurers working under the Chang-dzö-pa. There are 5 altogether, of whom 2, both monks, work at Po-ta-la and 3, 1 monk and 2 laymen, work in Lha-sa. 5th rank.
NYI-CHO . . . .	Woman's name.
NYI-MA . . . .	Man's name.
NYING-MA-PA . . . .	The most ancient sect of Tibetan Buddhism. Clothed in red.
NYI-PUN . . . .	Man's name.
Ö-KA . . . .	District with dzong, 5 days east of Lha-sa.
Ö-SER . . . .	Woman's name.
PA . . . .	Termination denoting resident of, <i>e.g.</i> , Tsang-pa resident of Tsang.
PA-LHA . . . .	Name of a noble family of Lha-sa.
PA-PA . . . .	Term applied to Chinamen and sons of Tibetan mothers by Chinese fathers. Apply only to such as are elderly and of no rank.
PA-RI . . . .	District with dzong near the head of the Chum-bi Valley. Under Lha-sa Government.
PA-RO . . . .	The capital of western Bhutan. Pronounced as Pa-tro.
PA-SANG . . . .	Man's name.
PA-SANG-KA . . . .	Bhutanese name for Baxa.
PA-SHÜL . . . .	Country, 3 months east of Lha-sa.
PA-TRO . . . .	<i>See</i> PA-ro.



Word.	Meaning.
PE-DE . . . . .	District with dzong in Tsang, 4 days west of Lha-sa. Under Lha-sa Government.
PE-DE TANG-CHEN . . . . .	Large plain in Pe-de district, 4 days west of Lha-sa.
PE-KYI . . . . .	Woman's name.
PE-MA . . . . .	Man's name.
PE-MA-KO-CHEN . . . . .	Country, 1 month east of Lha-sa.
PE-MA-YANG-TSE . . . . .	See Pe-mi-ong-chi.
PE-MI-ONG-CHI . . . . .	Pronounced Pe-ma-yang-tse. Monastery in Sikkim.
PEM-PA (1) . . . . .	Man's name.
PEM-PA (2) . . . . .	District with dzong in Kam, 1 month east of Lha-sa.
PE-NAM . . . . .	District with dzong, $\frac{1}{2}$ day's journey south-east of Shi-ga-tse. Under Lha-sa Government.
PEN-CHEN RIM-PO-CHE . . . . .	See Ta-shi La-ma.
PEN-DEN . . . . .	Man's name.
PEN-DÜN . . . . .	Man's name.
PEN-DZIN . . . . .	Man's name.
PEN-JOR . . . . .	Man's name.
PEP-CHANG GO-PA . . . . .	Attendants who accompany the sedan chairs of the Da-lai and Ta-shi La-mas. One of the Da-lai La-mas holds 4th rank, the others 5th rank; all are laymen.
PE-PO . . . . .	Tibetan name for Newar tribe of Nepalis.
PE-YU . . . . .	Tibetan name for Nepal.
Po (1) . . . . .	A termination denoting male, <i>e.g.</i> , dzo-po (bull-dzo), and so on.
Po (2) . . . . .	A District 16 days east of Lha-sa. Divided into Po-tö (Upper Po) and Pö-me (Lower Po). A hot country growing rice and similar crops.
Pö . . . . .	Tibetan name for Tibet.
PO-CHÖ-DZONG . . . . .	District with dzong in Kam, 22 days east of Lha-sa.
PO-DONG . . . . .	Monastery in Sikkim.
PON-LOP . . . . .	Title of the ruling chiefs of Bhutan.
PO-PÖN . . . . .	Head Paymaster of troops. There are 2 Tibetan Po-pöns, 1 monk and 1 layman, and 2 or 3 Chinese Po-pöns. 4th rank.
PO-RANG . . . . .	District with dzong, 1 month west of Shi-ga-tse. Under Lha-sa Government.
PO-TA-LA . . . . .	Residence of the Da-lai La-ma, situated on a hill outside Lha-sa.
PU . . . . .	Termination meaning "son" and often used in conjunction with the family name for the name of a person, <i>e.g.</i> , Truck-pe-pu "son of the Truv-pa family," and so on.
PU-MO . . . . .	Termination meaning "daughter" and used in a similar way to Pu.
PUM-PA-RI . . . . .	Mountain within 1 or 2 miles of Lha-sa.
PU-NA-KA . . . . .	Winter seat of the Deb Raja of Bhutan.
PÜN-KANG . . . . .	Name of a noble family of Lha-sa.
PÜN-SUM . . . . .	Man's name.
PÜN-TSO . . . . .	Man's name.



Word.	Meaning.
PÜN-TSO-LING . . . . .	District with dzong in Tsang, 2 days west of Shi-ga-tse. Under Government of Ta-shi Lhun-po.
PUR-PU . . . . .	Man's name.
PUR-TEN . . . . .	Man's name.
PU-TRI . . . . .	Woman's name.
RA-KA-SHAR . . . . .	Name of a noble family of Lha-sa.
RAM-PA . . . . .	Name of a noble family of Lha-sa.
RAM-PU . . . . .	See Rung-po.
RAP-GYE . . . . .	Man's name.
RAP-DEN . . . . .	Man's name.
RHE-NOK . . . . .	Pronounced Ri-nak. Town in Sikkim.
RIM-PUNG . . . . .	District with dzong in Tsang, 3 days east of Shi-ga-tse. Under Lha-sa Government.
RI-NAK . . . . .	See Rhe-nok.
RIN-CHEN . . . . .	Man's name.
RIN-CHEN-GONG . . . . .	Village in the Chum-bi Valley.
RIN-DZIN . . . . .	Man's name.
RONG-BA-CHA . . . . .	District 3 months east of Lha-sa near Nya-rong.
RUNG-PO . . . . .	Pronounced Ram-pu. A tributary of the Teesta, and a bazar at the junction of the two rivers.
RU-PÖN . . . . .	Officer in charge of 250 to 500 soldiers, 5th rank.
RU-TO . . . . .	District with dzong, 6 weeks north-west of Shi-ga-tse. Under Lha-sa Government.
SA-GA . . . . .	District with dzong, 20 days west of Shi-ga-tse. Under Lha-sa Government.
SA-KYA . . . . .	A semi-autonomous country, 5 days west of Shi-ga-tse. Contains a large monastery.
SAM-PO . . . . .	Name of a noble family of Lha-sa.
SAM-TEN . . . . .	Man's name.
SAM-TRUP . . . . .	Man's name.
SAM-YE . . . . .	District with dzong in Ü, 2 days south of Lha-sa. Contains a large monastery.
SAM-YE CHE-MA . . . . .	Desert in the Sam-ye district, about 1 day's journey across.
SANG-NGA CHÖ-DZONG . . . . .	District with dzong in Kam, 20 days east of Lha-sa.
SANG-PO . . . . .	Man's name.
SANG-GYE . . . . .	Man's name.
SE (1) . . . . .	District with dzong in Ü, 3 days west of Lha-sa.
SE (2) . . . . .	The honorific word for "son." Title given to a son in noble families and often used as a termination instead of his name, <i>e.g.</i> , Pa-lhe-se, "son of the Pa-lha family," and so on.
SE-CHUNG . . . . .	Name of a noble family of Lha-sa.
SE-MO . . . . .	See "Tre-mo."
SER-MA . . . . .	Militia consisting of the monks of Tibet.
SER-PO-PU LA . . . . .	Pass between North Sikkim and Tibet.
SER-RA . . . . .	Monastery near Lha-sa containing 5,500 monks.
SHANG . . . . .	Country, 2 days north of Shi-ga-tse.
SHANG-SHUNG . . . . .	Country, 10 days north of Lha-sa.



Word.	Meaning.
SHAP-PE . . . . .	Also called Sa-wang Chem-po and Ka-lön. Lay minister of the Head Council at Lha-sa. There are 4 Shap-pes, who, with 1 monk minister, Chi-kyab Kem-po, constitute the Head Council. 3rd rank.
SHA-TRA . . . . .	Name of a noble family of Lha-sa.
SHE-KAR . . . . .	District with dzong in Tsang, 7 days south-west from Shi-ga-tse.
SHE-MA-GANG . . . . .	District with dzong in Bhutan under Tong-sa Pön-lop.
SHE-NGO . . . . .	Officer over 40 or 50 soldiers. Layman. 7th rank.
SHER-PANG . . . . .	Magistrates at Lha-sa for deciding case among agriculturists. There are two Sher-pangs, both Laymen. 5th rank.
SHI-CHO . . . . .	Woman's name.
SHI-GA-TSE . . . . .	Pronounced Shi-ka-tse. Capital of Tsang Province and seat of a dzong which is under Lha-sa Government.
SHI-KA-TSE . . . . .	See "Shi-ga-tse."
SHING-NYER . . . . .	Superintendents of the State firewood at Lha-sa.
SHO . . . . .	A coin equal to four annas.
SHÖ-KA . . . . .	District with dzong in Kong-po, 11 days south-east of Lha-sa.
SHÖ-KONG-DZÖ . . . . .	Government warehouse below Po-ta-la.
SHONG-GAR . . . . .	District with dzong in Bhutan under Tong-sa Pön-lop.
SHÖ-PA (1) . . . . .	Magistrate for the suburbs of Lha-sa.
SHÖ-PA (2) . . . . .	District with dzong in Kam, 15 days east of Lha-sa.
SIM-PÖN KEM-PO . . . . .	Head valet, monk, of great La-mas, especially of Da-lar and Ta-shi La-mas, in which they hold 4th rank.
SOK-PO . . . . .	Tibetan name for Mongolians.
SÖ-NAM . . . . .	Man's name.
SÜ-PA . . . . .	Man's name.
SÖ-PÖN CHEM-PO . . . . .	Head cup-bearer of great La-mas, especially of Da-lai and Ta-shi La-mas, in which case they hold 4th rank. Monk.
SUM-CHO . . . . .	Woman's name.
SUR-KANG . . . . .	Name of a noble family of Lha-sa.
TA-CHI (1) . . . . .	District with dzong in Ü, 3 days south of Lha-sa.
TA-CHI (2) . . . . .	Hereditary position of 2nd rank, but no power. There is 1 Ta-chi.
TA-DA-MA . . . . .	Title given to monk, 2nd rank. There are 2 Ta-da-mas. They have no power.
TAK-PO . . . . .	Country with 4 dzongs, 7 days south-east of Lha-sa.
TANG . . . . .	A plain. Occurs commonly with names of plains as a termination, <i>e.g.</i> , Chang-tang, northern plain, etc.
TANG-KU . . . . .	Place in Upper Sikkim in the La-chen Valley.
TA-LE LA-MA . . . . .	See "Da-lai La-ma."
TAM-DRIN . . . . .	Man's name.
TAR-KAR . . . . .	District with dzong in Bhutan, the private property of the Dhar-ma Ra-ja.



Word.	Meaning.
TAR-GYE . . . .	Man's name.
TAR-TSEN-DU . . . .	Chinese town near the border of Tibet on the high-road between Peking and Lha-sa.
TA-SHI LA-MA . . . .	Head La-ma of Tsang province, ranks next in Tibet to Da-lai La-ma. Resides at Ta-shi Lhün-po. Also called Pen-chen Rim-po-che.
TA-SHI LHUN-PO . . . .	Large monastery containing 5,000 monks adjoining Shi-ga-tse. Seat of Tra-shi La-ma.
TA-U . . . . .	Supply of riding horses for Government officers on tour and for travellers authorised to demand it.
TEM-PA . . . . .	Man's name.
TEN-DZIN . . . . .	Man's name.
TEN-GYE-LING . . . . .	Monastery in Lha-sa; one of the 4 from which a Regent of Tibet is chosen.
TEN-NOR . . . . .	Man's name.
TIM-PU . . . . .	The district in Bhutan in which Tra-shi-Chhöb-dzong is situated.
TING-KYI . . . . .	District with dzong in Tsang near Kam-pa-dzong.
TING-RI (1) (DINGRI) . . . . .	Military cantonment in Tsang. South-west of Shi-ga-tse. Contains about 500 soldiers.
TING-RI (2) . . . . .	Country 8 days north of Lha-sa, called "North Ting-ri" to distinguish it from the military cantonment.
TING-RI TSO . . . . .	A large lake 8 days north of Lha-sa.
TÖ . . . . .	A termination meaning "upper," e.g., Po-to, "Upper Po."
TÖ-GAR-PÖN . . . . .	District with dzong, 1 month west of Shi-ga-tse under Lha-sa Government.
TOK-ME . . . . .	Man's name.
TOM-BEP . . . . .	Man's name.
TÖM-PA . . . . .	Name of a noble family of Lha-sa.
TÖN-TRUP . . . . .	Man's name.
TOP-DEN . . . . .	Man's name.
TOR-MA . . . . .	Sacrificial offering of rice, barley-flour, etc., usually conical in shape. After dedication, it is burnt or thrown away.
TOR-SA . . . . .	Indian name for the Am-mo Chu, which flows through the Chum-bi Valley and Bhutan, and enters the plains in Jalpai-guri district.
TRA-CHI-TANG . . . . .	A plain near Lha-sa used for drilling soldiers.
TRA-KO . . . . .	Woman's name.
TRAK-PA . . . . .	Man's name.
TRANG-KA . . . . .	A coin equal to about six annas. In Tibet three are exchanged for a rupee.
TRA-SHI-DING . . . . .	Monastery in Sikkim.
TRA-SHI-GANG . . . . .	Dzong in Bhutan under Tong-sa Poin-lop.
TRA-SHI CHÖ-DZONG . . . . .	The summer seat of the Deb Ra-ja of Bhutan.
TRE-DÜ-PA . . . . .	Tax-collector.



Word.	Meaning.
TRE-MO . . . . .	Or Se-mo. The honorific word for "daughter." Title given to a daughter in a noble family and often used as a termination instead of her own name, <i>e.g.</i> , Sur-khang Tre-mo, "daughter of the Sur-khang family," and so on.
TRI-GU . . . . .	District with dzong, 9 days south of Lha-sa.
TRIN-LE . . . . .	Man's name.
TRO-MO . . . . .	Tibetan name for the Chum-bí Valley and surrounding country.
TRONG-SA . . . . .	Place in Bhutan, seat of the Trong-sa Tön-lop, who is at present the most powerful chief in Bhutan.
TRUM-PA . . . . .	Name of a noble family of Lha-sa.
TRUNG-KOR . . . . .	Generic name for laymen officials as opposed to Tse-trung, monk officials. There are said to be 115 under the Lha-sa Government and 30 under the Ta-shi Lhun-po Government.
TRUNG-YI CHEM-PO . . . . .	Secretary of the Da-lai and Tra-shi La-mas. Monk. 4th Grade.
TSAM-CHÖ . . . . .	Woman's name.
TSAM-PA . . . . .	Barley-flour.
TSAM-SHE-PA . . . . .	Superintendents of supplies consisting of corn, oil, etc., belonging to the Lha-sa Government. Two, 1 monk and 1 Layman. 7th rank.
TSANG . . . . .	Name of province west of Ü. Its capital is Shi-ga-tse.
TSA-NYER . . . . .	Superintendents of fodder for stables of Da-lai La-ma; 1 monk, 1 layman, 7th rank.
TSA-RANG . . . . .	District with dzong, 5 weeks west from Shi-ga-tse. Under Lha-sa Government.
TSA-TANG . . . . .	A plain between Gyang-tse and Kam-pa-dzong.
TSA-TSI . . . . .	Written copy of Government Regulations circulated annually by Lha-sa Government to all dzongs and affixed in public places throughout the country.
TSE-CHI . . . . .	Man's name.
TSE-CHO-LING . . . . .	Monastery in Lha-sa; one of the 4 from which a Regent of Tibet is chosen.
TSE-CHU . . . . .	Man's name.
TSE-GYE . . . . .	Man's name.
TSE-LA-GANG . . . . .	District with dzong in Kong-po, 14 days south-east of Lha-sa.
TSE-LAP-TRA . . . . .	School in Lha-sa in which the Tse-trungs serve their apprenticeship.
TSE-LHA . . . . .	Woman's name.
TSEN-DRÖN . . . . .	Aide-de-camp to the Da-lai and Ta-shi La-mas. 5th rank. Monk.
TSE-NYI . . . . .	Man's name.
TSEN-NYI CHEM-PO . . . . .	Title of a learned Mongolian La-ma, one of the instructors of the Da-lai La-ma.
TSE-RING . . . . .	Man's name.
TSHE-SUNG . . . . .	Man's name.
TSE-TEN . . . . .	Man's name.



Word.	Meaning.
TSE-TRUNG . . . . .	Generic name for monk officials, as opposed to Trung-khor, laymen officials. There are said to be 175 Tse-trungs under Lha-sa Government and 50 under the Ta-shi Lhun-po Government.
TSE-WANG . . . . .	Man's name.
TSI-KANG . . . . .	Government office in Lha-sa in which the Trung-kors serve their apprenticeship.
TSI-PA . . . . .	Accountant.
TSI-PÖN . . . . .	A sort of Accountant-General. There are 3, and all reside in Lha-sa. 4th rank. Laymen.
Tso . . . . .	A lake. Occurs commonly as a termination <i>e.g.</i> , Yam-drok Tso, "Lake in the Yamdro country."
Tso-mo . . . . .	Woman's name.
Tso-mÖN-LING . . . . .	Monastery in Lha-sa ; 1 of the 4 from which a Regent of Tibet is chosen.
TSÖ-NA . . . . .	District and dzong, 7 days south of Lha-sa.
Tso-PÖN . . . . .	A headman over a group of Gem-pos. Pays Government revenue to the Dzong-pön. Sees to supplies for Government officers on tour and for travellers authorised to demand it.
TUNG-KAB . . . . .	District and dzong in Ü, 1 day west of Lha-sa.
Ü . . . . .	Name of province in which Lha-sa is situated.
U-CHEN . . . . .	The Tibetan printed character.
U-ME . . . . .	The Tibetan manuscript character.
U-GYEN . . . . .	Man's name.
WA . . . . .	Termination denoting <i>resident of</i> , <i>e.g.</i> Tro-mo-wa, "resident of Tro-mo country."
WA-LUNG . . . . .	A country on the Nepal-Tibet frontier.
WANG-CHU . . . . .	Man's name.
WANG-DEN (1) . . . . .	Man's name.
WANG-DEN (2) . . . . .	District with dzong in Tsang, 2 days from Shi-ga-tse. Under Lha-sa Government.
WANG-DÜ . . . . .	Man's name.
WANG-DÜ PO-TRANG . . . . .	Place in Bhutan, seat of a Pon-lop.
WANG-MO . . . . .	Woman's name.
WANG-PO . . . . .	Man's name.
WANG-TRA . . . . .	Man's name.
YAK-RA . . . . .	Sub-division of Nak-chu district, 15 days north of Lha-sa.
YAM-DROK . . . . .	A country, 5 days south-west of Lha-sa.
YAM-DROK Tso . . . . .	A large lake, 5 days south-west of Lha-sa in the Yam-dro country.
YANG-CHEN . . . . .	Woman's name.
YANG-DZOM . . . . .	Woman's name.
YANG-KYI . . . . .	Woman's name.
YAP-SHI . . . . .	Name by which the birth-place of a Da-lai or Ta-shi La-ma is always known.
YAP-SHI SAR-PA . . . . .	Name of a noble family in Lha-sa.
YA-TUNG . . . . .	Pronounced Nya-tung. Trade station just above Chum-bi Valley.



	Word.	Meaning.
YE-SHE	. . . . .	Man's name.
YIK-TSANG	. . . . .	Office of the Trung-yi Chem-po at Lha-sa and Shi-ga-tse.
YÖN-TEN	. . . . .	Man's name.
YÜ-MA	. . . . .	Territorial army or militia of Tibet.
YU-TO	. . . . .	Name of a noble family in Lha-sa.

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## APPENDIX D.

### GENERAL MACDONALD'S REPORT ON THE TACTICAL AND STRATEGICAL QUESTIONS AFFECTING FUTURE OPERATIONS IN TIBET.

No. 1584-A, dated Camp, Fort William, the 30th November 1904.  
 From—BRIGADIER-GENERAL J. R. L. MACDONALD, C.B., R.E., Commanding Tibet Mission Escort,  
 To—The Adjutant General in India.

I have the honour to forward this my report on the tactical and strategical questions affecting future operations in Tibet with short notes on the working of the different arms, and points brought to notice on which improvements might be effected.

#### SEASON FOR OPERATIONS.

Winter operations on the 14,000' to 15,000' highlands of Tibet, exposed to extremely low temperatures and blizzards, in a country where ordinary forage and fuel exclusive of other supplies are not obtainable in sufficient quantity, may be considered out of the question.

The season for active operations is thus reduced to the period from the beginning of April to the end of October, or perhaps the middle of November, or 7 to 7½ months.

In the Gyantse-Shigatse valley, the Lhasa valley and the valley of the Brahmaputra, the climatic conditions are such that active operations are possible, but communication with India would be uncertain and hazardous during the winter months.

In the Chumbi valley experience has shown that operations could be carried on all winter, though with difficulty and hardships, the worst months being January, February and the early part of March. The communications between India and the Chumbi valley are liable to very heavy rainfall from the middle of May till the end of September and are most unhealthy in September and October.

Thus in any future operations, the force should be in a position to advance from Phari at the end of March, with fully stocked depôts so as to take the maximum advantage of the short season available for active operations in the highlands of Tibet.

Should circumstances point to a possibility of winter operations being necessary at or beyond Gyantse, an advanced base would have to be established at Gyantse, with sufficient supplies, military stores, and replacements of clothing, to make the advanced force independent of communications with India during the winter months.

#### STRATEGY.

The above considerations show that the Chumbi valley and Phari must be seized and converted into a first advanced base as a preliminary to any further advance.

Conjointly with this Northern Sikkim would have to be occupied in sufficient force to guard against Tibetan inroads and to constitute a threat against Khamba Jong.

Doubtless when the new Dichu-Ammo Chu road is ready the main advance into the Chumbi valley would be by that route: but it would be desirable to seize the Nathu La by a sufficient force from Gangtok and demonstrate against the Jelap



In and Tank La, measures which would probably deter the enemy from seriously attempting to defend the lower Chumbi valley.

The Upper Chumbi valley is different and is very difficult and capable of strong defence.

It cannot be directly turned from Sikkim, and any attempt to turn it by marching from North Sikkim and Khamba Jong to the Tang La would be totally unsound and extremely hazardous. Any such turning force would be completely out of touch with the remainder of the force, would have to march through singularly barren and unproductive country to an objective equally barren and unproductive, and would expose its flank and weak communications to attack from the direction of Shigatse: while the enemy would have all the advantages of interior lines and the uncertainty in timing the junction of our forces.

From New Chumbi however the difficult defiles of the Upper Chumbi valley can be turned by the Kumbu valley. The latter valley, though comparatively open, further north passes through difficult defiles as it approaches its junction with the Chumbi valley, and the road through these defiles is difficult for animal transport at the best of times.

A cross communication, however, leads from Lingmathang in the Chumbi valley across the intermediate hills to the middle Kumbu valley. Possession of Lingmathang and this cross communication would enable outflanking movements against the west flank of any enemy holding the upper defiles of the Chumbi valley. With their west flank insecure the Tibetans would not be likely to hold on to the heights east of the Chumbi defiles as there is only a narrow strip of country between the valley and the Bhutan border.

Once Phari is secured we have open country to operate on, where the Tibetans could not hope to fight to advantage.

To facilitate the occupation of the Chumbi valley it would be well that the force in North Sikkim should be fairly active in threatening Khamba Jong and in thus concentrating the main attention of the enemy on that portion of their frontier.

There is a lateral communication between Khamba Jong and the Tang La which would probably enable the Tibetans to transfer a force from Khamba Jong in time to oppose our advance through Upper Chumbi, though it is doubtful whether they would be in time to materially affect the position in Lower Chumbi.

Thus every effort should be made to secure the Lower Chumbi valley up to Lingmathang as early as possible; if the Tibetans are not in a position to defend the upper valley the advance should be pushed on to Phari at once: if they intend to defend the upper defiles our occupation up to Lingmathang places us in the best position to deal with these defiles.

The complete occupation of the Chumbi valley up to the Tang La must be the first objective, in order that we may be able to collect sufficient stores and supplies at Phari to allow of commencing operations in Tibet proper at the end of March.\*

In the expedition of 1903-04, it took roughly 2½ months to collect sufficient supplies at Phari to warrant an advance on Gyantse, but one month was due to waste of time and power owing to our having to occupy Tuna and keep it supplied to suit the requirements of the Mission. A further period of two months' preparation was necessary to accumulate supplies for the further advance on Lhasa.

The time required for such preparations of course depends on having sufficient transport on our communications with India, and although in any future campaign larger forces will doubtless be necessary, still, on the other hand, our communications and our knowledge of requirements should be of superior quality, so that the total period necessary for stocking Phari sufficiently to justify an advance should not exceed three months.

This would mean that we must be in possession of the Chumbi valley up to the Tang La by the end of December.

\* For every fighting man it is intended to send beyond the Tang La the following supplies should be stored at Phari before the advance begins:—

Minimum.—2·5 maunds rations, 3·0 maunds grain, 3·3 maunds baled *bhusa*, 1·2 maunds wood.

Recommended.—4·0 maunds rations, 3·6 maunds grain, 4·0 maunds baled *bhusa*, 1·2 maunds wood.



The length of time necessary to obtain complete possession of the Chumbi valley will of course depend on the opposition encountered, but actual active preparations should obviously begin as soon as possible after the rains, say the beginning of October. Sufficient troops to guard North Sikkim and the frontier should be sent up and the transport service to the frontier be at once organised and the necessary godowns and huts built.

A month's supplies for the whole force, with grain for the necessary animals, and say a quarter baled fodder, should then be laid in at convenient depôts near the frontier.

When this is nearly complete the balance of the necessary force with its transport and sufficient troops for the communications to Phari should be mobilized, and, while a demonstration to mislead the enemy is made in North Sikkim, should without delay occupy the Chumbi valley.

For the further campaign beginning in April Gyantse is evidently marked out as the first objective, if for no other reason than that it is the nearest cultivated centre, being 100 miles from Phari, where supplies for animals can be depended on in considerable quantities.

The direct road to Lhasa marked on the map east of Bam Tso and across the Robsang La appears to be impracticable for any advance in force. It leads over a barren tract and several lofty passes, by extremely difficult paths, to and by this route the first adequately cultivated district is the valley of the Brahmaputra which is nearly 180 miles from Phari. This route is little used by the Tibetans themselves and it would be difficult for them to move any large body of men by it, though it would doubtless be guarded in more or less strength until our actual line of advance was known.

The direct route from Phari to Gyantse presents no difficulties as far as Mangsta, lying as it does over plains and amongst easy rounded hills; from Mangsta to within 6 miles of Gyantse it, however, passes down a narrow valley and through numerous easily defended defiles.

The portion from the Tang La to Mangsta is liable to attack from the west by a Tibetan force operating from Khamba Jong, but the intervening country is so barren and sterile that no large Tibetan army could operate in it. From Mangsta to Gyantse the mountains west of the road are more difficult and the nearest parallel road which the Tibetans could use is far removed from the Mangsta-Gyantse road and is in poor country; the Mangsta-Gyantse section is, however, liable to attack from the Neru valley which is comparatively open, possesses several villages and is parallel to this section at a distance of 15 miles, and easily accessible from Ralung. On the Gyantse-Lhasa road there are two important strategical points between Phari and Gyantse, *viz.*, Kala whence paths lead to Khamba Jong, and an easy track into the Neru valley; and Kangmar whence a road leads direct to Kalung crossing the Neru valley.

A force holding Kala leaves the enemy in uncertainty as to our ultimate line of advance: and as the country both east and west is comparatively open and easy would deter any attack on our communications by a movement east of Bam Tso and enable us to threaten the retreat of any force similarly operating from Khamba Jong against the Tang La or Tuna.

There are other paths from the Khamba Jong side leading to Guru and Dochen, but all appear to branch off from the Khamba Jong Kala road.

The defiles between Mangsta and Kangmar can all be turned by a movement down the Neru valley which can be reached from Kala by a pass, which though over 16,000 feet is very easy. A movement into the Upper Neru valley compels the enemy to divide his force, as he must guard the Kala-Gyantse road, while from the Neru valley a force could threaten an advance, either to Kangmar on the Phari-Gyantse road or to Gobshi or to Ralung on the Gyantse-Lhasa road, or direct to the Yamdok Cho by the Sela.

A movement by the Neru valley would compel the enemy to fall back north of Kangmar.

Between Kangmar and Gyantse there is the formidable Zamdang gorge and two other minor defiles. These all partake of the same general characteristics, that the northern slopes or spurs which form the defiles are relatively easy, while



their southern faces are precipitous or rocky. Considerable attention was given to finding some means of turning these defiles, and a comparatively easy pass was found to lead from the Lower Neru valley to Saotang or Niani on the Phari-Gyantse road.

The direct route down the Neru to Gobshi is also practicable, but the lower portion of the Neru is much more enclosed and difficult, and any force operating in this portion of the valley would be quite out of touch with those moving down the Kangmar-Gyantse road. The road to Ralung is also practicable, but involves a quite unnecessary detour, Gyantse being our objective.

Thus the best plan would apparently be to demonstrate against Gobshi and Ralung and cross from the Neru valley to Saotang or Niani, thus turning the Gyantse-Kangmar defiles, and immediately opening the main Phari-Gyantse road which is best suited for transport purposes.

Gyantse having been secured, our attention can be directed to Shigatse or Lhasa, or both.

Operations from Gyantse against Shigatse would not be attended with such great difficulties, as the lower valley of the Nyang Chu is comparatively open and well cultivated.

From Shigatse to Lhasa there are two main roads practicable for transport, both of which meet near Yazig, one leading up the Rong valley and the other *via* Ralung and the Karo La.

The lower portion of the Rong valley is populous and cultivated though the valley is narrow; but in the upper portion of the valley villages and cultivation are scarce, the road is poor and there is at least one very difficult defile. The Karo La road is good, but villages and cultivation are scarce till one reaches a point 20 miles east of Gyantse. From Gyantse it is possible to reach the Rong valley *via* the Yung La, but supplies are scarce and the road poor.

The best line of advance on Lhasa would thus appear to be by the Karo La or main trade route. On this route there are several defiles between Gyantse and Ralung, notably a very strong position at Gobshi.

These defiles could, however, be all turned by a force operating by the Kangmar-Ralung road which could communicate with the force moving up the main Gyantse-Ralung road. The Karo La itself or rather the Zara defile, some 4 miles east of the Karo La, is a very formidable obstacle as no flanking movements are practicable owing to its flanks resting on snow fields and glaciers. There is said to be a road practicable for coolies leading from Ralung to the Yamdrok Cho south of the Karo La, but it is apparently impracticable for any large body of men or for animal transport.

There is another road by which a turning movement could be carried out, north of the Karo La. This road joins the main trade route at Yazig and is not difficult except that it crosses two passes each about 400 feet higher than the Karo La. This road leads through the difficult defile in the Upper Rong valley which has been already alluded to, but the heights south of this defile can easily be reached and crowned by troops descending from the second of the two passes mentioned above. Though not as suitable as the Karo La road for the main line of communication, it would be a practicable means of turning any position in the Zara defile, and compelling the enemy to evacuate this really formidable position.

Once the Zara defile is cleared there are no serious obstacles between that point and the Brahmaputra. At several points high spurs run down to the bank of the Yamdrok Tso, but any positions taken up on these can be turned from the hills to the north, and neither the Dok La, 16,800 feet, nor the Khamba La, 16,400 feet, are difficult as the surrounding hills are easily accessible.

Once the Brahmaputra valley is reached, forage, grain, and wood can be obtained in considerable quantities, but the country between Kangmar and the Brahmaputra is very poor and only a little fodder and wood can be depended on.

The communications between Gyantse and the Brahmaputra are practically only liable to interference in force from the Rong valley; several passes lead south from this on to the main trade route between Gyantse and Ralung, notably the one near Shelot. A force could also debouch on to the shore of the Yamdrok Tso.

If Shigatse as well as Gyantse were held the Tibetans of the Rong valley would be unlikely to commit themselves, and even if Shigatse be not held but only



threatened by a force at Gyantse, the dislike of the Tibetans to have their line of retreat threatened would probably deter them from a serious effort to cut communications between Gyantse and Ralung or at Yazig, as long as the Yung La is in our possession or power.

Interference from the south side of the trade route is less likely as the country is generally poor and sparsely inhabited, though frequented by robbers and brigands.

In any case the *Jongs* of Pete and Nagartse are well situated to protect the communications.

The crossing of the Brahmaputra is in any case a formidable undertaking, and if strongly opposed would be a very difficult one.

There are two crossing places available for an advance on Lhasa, the upper, or Parti crossing opposite the Dok La and the lower or Chaksam crossing some 10 miles north-east of the Khamba La.

The former is used by the natives in the summer and the latter in the winter when the river is low. At Parti the north bank commands the south bank, but is itself commanded within easy range of mountain guns from the hills south of the river. At Chaksam the north bank is commanded by the south bank.

At Parti crossing the river is free from dangerous whirlpools and its width even in summer does not exceed 200 yards.

At Chaksam there are dangerous eddies and whirlpools, and though the river is only 140 yards wide in the winter, it easily spreads over its north bank in the summer floods, and may attain a width of 800 to 1,000 yards. If the river is not in flood a crossing can easily be effected east or west of Parti, but the riverbed both above and below Chaksam splits up into a number of channels which add to the difficulty of crossing anywhere except at Chaksam itself.

At Kampevargi there is also a crossing practicable when the river is at its winter level. A road on each side of the river connects Parti and Chaksam.

In the expedition of 1903-04 the Mounted Infantry sent in advance succeeded in capturing two large punts and several skin boats like coracles.

If, however, the Tibetans intended to contest the passage they would doubtless remove or destroy their boats, hence any future expeditionary force should have better means of crossing the river than the expedition of 1903-04, which had only four duplex 12-foot Berthon boats. These proved useful and their number might well be increased, but probably the most suitable boats would be 20 to 25 feet whale boats in sections.

Those used in Uganda were of steel, but if made of aluminium doubtless larger sections could equally well be carried by two men each. These whale boats were very handy in the water and in rough water too.

With two such boats and 8 Berthon boats mentioned above it should be possible to pass over 100 men a trip independently of any local craft.

The bridging plant should also include steel cables and runners and a fair supply of rope, in all of which items the expedition of 1903-04 proved at first inadequately equipped.

After crossing the Brahmaputra there are still several positions the enemy might hold between the river and Lhasa. The first of these is at Chusul, where although the *Jong* itself is ruined, the rocky spur on which the *Jong* is built and which runs down to the river would make a strong position; it can, however, be turned by infantry climbing the hills to the north on to the main range, of which the Chusul spur is a minor feature. After passing Chusul we get into the comparatively open Kyi Chu valley. The road runs along the right bank of the river and is frequently within gunshot of the left bank; while at several points between Jang and Nethang rocky spurs run down to the river bank and form strong positions. These can, however, be turned by infantry climbing the hills to the west and taken in reverse by troops passed over the Kyi Chu river which is unfordable.

Just north of Nethang is a short defile, where the road passes a low neck; but this can be still more easily turned.

The Trilung Chu river, both banks of which are well cultivated, forms the next obstacle as the river is unfordable at the road bridge. It can, however, be forded some miles further up.



Between the Trilung Chu bridge and Lhasa there are two defiles caused by spurs running down to the right bank of the river (Kyi Chu). Both could be fired on in reverse by troops passed across the river, and could be turned by infantry climbing the hill to the north; the latter are, however, rocky and difficult.

The open ground is dotted with hamlets, each capable of strong defence.

From the Dehung Monastery two roads lead towards Lhasa, one direct and on an embankment through swampy country, the other along the base of the northern hills.

The former leads directly on the Po-ta-la Medical College ridge, which completely shuts out of sight the town of Lhasa and is itself flanked by the Norbuling, a strong walled enclosure with numerous solid buildings.

The latter road runs close under the northern rocky hills which can here be more easily scaled, and has to the south the great grazing swamp; it, however, leads on to the dry open ground north of Lhasa, where movements of troops would be freer.

From this side, the city of Lhasa lies open as also does the Sera monastery, but the Po-ta-la is strong and would be more easily attacked from the direction of the main gate between it and the Medical College.

The Po-ta-la Medical College ridge completely commands the city of Lhasa, the Po-ta-la being the dominating point of all.

From this it will appear that the approach from the Brahmaputra to Lhasa affords many positions where a resolute enemy could give a great deal of trouble, but it is more than likely that once we gained the defiles between Jang and Nethang, the Tibetans would give in to save their monasteries and holy places from destruction. The hamlets round the Trilung bridge and between that point and Lhasa belong to the leading men of Lhasa or the monasteries, and the destruction of these too would be averted if possible.

At the same time if the Tibetans determined to defend Lhasa and its environs the task before our expeditionary force would be no light one, and it would be necessary for us to obtain possession of the Po-ta-la Medical College ridge, an objective which would be in itself very difficult and would necessitate the preliminary capture of several large places, and buildings lying west of the ridge amongst groves of trees.

Once the ridge was captured the town could not hold out long. It would probably be necessary, however, before attempting Lhasa itself to take the Dehung and Sera monasteries. The former can best be commanded from the spur east of it, where positions for guns can be found; the latter can also be most readily commanded from the eastern spur, though the western one is also practicable for infantry; both monasteries are, however, a close accumulation of very solid buildings and capable of much obstinate resistance in house-to-house fighting. The capturing of these two monasteries would, however, probably lead to the surrender of Lhasa.

In case of the siege or occupation of Lhasa while the country still remained hostile, the communications between the Yamdrok Tsö and Lhasa would be liable to annoyance from several directions.

The Trilung Chu and Pemba Chu (a branch of the Kyi Chu) valleys west and north of Lhasa are both cultivated and could subsist a considerable force for a short time, while these two valleys are connected by a path north-west up the Pembagong La pass.

The upper part of the Kyi Chu valley is also cultivated to a considerable extent and has communication with the Brahmaputra valley by a road branching off at the Gading monastery.

Thus the numerous Kham and Kombu levies which can be drawn from the more fertile districts of Eastern Tibet and the lower part of the Brahmaputra, would have inter-communication and could operate direct up the Brahmaputra, or by the Kyi Chu and Trilung Chu valleys. They might even cross from the Brahmaputra valley by one of the numerous passes to the shores of the Yamdok Cho, though this is more unlikely.

We should, however, have to leave a force in the Brahmaputra valley to guard our ferry and it would probably be necessary to take and occupy Jong-ka-jong,



an old but strong fort some 1 miles east of Chaksam, which blocks the road on the south bank of the river. The moral effect of this would probably deter the Tibetans from crossing to the Yamdrok Tso.

To secure the uninterrupted occupation or siege of Lhasa—always assuming the country is still hostile—we should have to guard the Trilung bridge, the Pembagong La, and occupy the Gading monastery, while keeping a mobile column ready to support these places. The threat over the Pembagong La would, to a large extent, decrease any risk of interference from the Trilung Chu valley; while the occupation of Gading would hamper communication between the Kham and Kombu contingents.

As already said, however, it is probable that rather than push matters to such extremes and risk the destruction of their sacred city, the Tibetans would surrender once our force passed the Brahmaputra and forced the lower defile of the Kyi Chu valley.

### TIBETAN TACTICS.

Tibetans when attacking, almost invariably make a long night march and attack in the early dawn, attempting to surprise their foes by rushing their position or camp with yells and using swords in preference to musket fire. These tactics were attempted by them twice in the present campaign, on the only two occasions when they attacked, namely at Gyantse on May 5th and Kangma on June 7th. On both occasions they got to close quarters, but not having accomplished a surprise they were beaten off by the heavy magazine fire which greeted them. Two night attacks were also made by them in the Sikkim campaign in 1888. Their leadership was, moreover, half-hearted and wanting in dash. This was probably due to the early recognition of the superiority of our artillery and musketry fire, as they are by no means wanting in pluck.

The Tibetans displayed very little enterprise in attacking our lines of communication and convoys, only twice trying to cut off small Mounted Infantry parties carrying the mails and once attacking Kangma; and although they successfully ambuscaded one small Mounted Infantry party it was relieved and extricated after a fight lasting some time.

The Tibetans possess few mounted troops so that though they were probably kept well informed of our movements by villagers and men watching from the mountain heights, they never attempted to cut in on our rear or make any demonstrations by threatening our flanks, or turning movements.

As a rule the Tibetans confined themselves to defensive operations and rely chiefly to the great natural and physical difficulties of their country, and the many splendid positions it contains, to resist invasions and attacks.

They proved themselves very apt at choosing the strongest positions available and improving them by building large and long walls, at which they are very skilful and on which they set great reliance.

The walls built by them were generally found extremely well constructed with one or two lines of well built loopholes and partitions for each man providing flank and head cover, with a small excavation behind the foot of the wall for a man to sit in, in perfect safety. The walls generally were from 6 to 8 feet high and 3 to 5 feet thick, built of stone. The walls and strong stone buildings of monasteries and villages when held by the Tibetans were always most stubbornly contested, and had it not been for the superiority of our artillery and the demolition parties with gun-cotton to blow them down, we should have suffered very severely in attacking Tibetans holding fortified and walled positions, monasteries and villages.

The Tibetan is a most stubborn house-to-house fighter and will often prefer certain death to surrender, fighting to the last.

Like all undisciplined fighters they are very sensitive to their flanks being threatened or turned. Under such circumstances their defence rapidly weakens, but if completely surrounded they fight with the greatest tenacity and courage.

Where the Tibetans chiefly failed was in their lack of organization and they seemed unable to maintain any large body of men in one spot for any time and



consequently had their forces much split up, enabling us to deal with them in detail.

Their supply and transport arrangements were faulty and deficient, and they seemed to find great difficulty in amassing stores or moving them quickly.

## NOTES ON THE WORKING OF THE DIFFERENT ARMS.

### MOUNTED INFANTRY.

There were three companies, 100 strong each, employed with the force. The 1st Company composed of men from 23rd and 32nd Pioneers and 8th Gurkhas, was raised locally and the remaining two companies were raised in India and were composed of Pathans and Punjabis; the 3rd Company only arriving half-way through the operations.

The Mounted Infantry proved invaluable in reconnoitring work, flanking and turning movements and in pursuit.

They were also largely used in carrying the mails and maintained constant communication when at Lhasa, between that place and Gyantse.

The men were well trained and hardy, and the ponies supplied were for the most part of a very useful and hardy stamp; excellently suited for the work they carried out, being mostly Tibetan and hill ponies of about 13 hands high.

The importance of having a considerable body of mounted troops with the force was recognised at an early stage of the operations, as the plateaux of Tibet are most suitable for their employment, and their mobility enabled them to render signal service which could only have been performed by unmounted men very slowly and with great difficulty, as on account of the great altitude at which operations were carried out men on foot could only move very slowly on account of shortness of breath which did not affect animals to the same extent.

The Mounted Infantry suffered great hardships whilst on mail duty and carrying despatches from Lhasa, as they were out in all sorts of weather, and had to traverse great distances day and night, often through piercing winds and snow; and the pluck and endurance displayed by the men on this duty deserves the highest praise.

I would recommend that a proportion of officers and men of Pioneer Regiments should be trained at the Mounted Infantry Schools in the same manner as other corps, and think it would be a good thing if two or three companies of Mounted Infantry were always maintained ready for service, mounted on hill ponies, similar to those used with this expedition.

The following *personnel* is required for each company of Mounted Infantry to improve its efficiency:—

- 1 Saddler (a trained soldier).
- 1 Assistant Armourer.
- 2 *Nalbands*.
- 2 *Mochis*.

The following improvements in equipment are suggested.

The present saddle and bit are too large for ordinary ponies.

Cruppers are absolutely necessary for hill work.

A spare supply of shoes and nails should be provided for each Company.

The present khaki cord breeches should be made of stouter material and cut like knickerbocker breeches to prevent them splitting across the knees and seat.

Putties to be bound for 2 feet round lower edge with leather to prevent fraying from stirrup leathers.

Two bandoliers of 80 rounds in place of one bandolier and three pouches.

Only light men should be selected for a course of Mounted Infantry. The men sent up were nearly all very heavy powerful men, much heavier than necessary.

Sections of Mounted Infantry should, as far as possible, be composed of men of the same cast, from the same regiment and with their own *langri*.



## ARTILLERY.

The 10-pr. screw gun with which all Mountain Batteries in India are now armed is an excellent and accurate gun in all respects.

It was not until the expedition had been some time in existence that common shell was supplied with this gun. When used, however, it was found to be very effective in breaching rough masonry walls, and against stone buildings and *sangars*, which in Tibet are very massive. It was not so effective against mud walls. A great many shells are, however, necessary to breach the thicker walls and buildings and it would be very advantageous for any future expedition to Tibet to have some form of light mountain howitzer throwing a 25-lbs. shell with high explosive accurately up to 2,000 yards.

This would have a greater moral effect, and save a good deal of time in dealing with massive stone forts and monasteries where the walls are generally from 8 to 10 feet thick.

The proportion of common shell to be carried by Mountain Batteries is not yet fixed, but I think 30 *per cent.* should in future be carried.

The training and working of the batteries on the expedition left little to be desired; they were cool in action and their fire discipline was good and shooting very accurate.

The reduced charges for use with common shell arrived too late to give them a trial, and no occasion occurred for firing star shell.

The 200 lb. 7-pr. M. L. gun was also used with the expedition and was asked for, for the sake of the high angle fire obtained with its double shell.

There were also two short 150 lb. 7-pr. M. L. guns taken up. As these guns are obsolete and are not likely to be again used in future expeditions much need not be said about them. They were, however, useful on several occasions and are accurate with shrapnel up to 2,000 yards. The fire with double shell was, however, very erratic.

Fuze No. 8, Percussion, small, was very irregular.

The following points were also brought to notice and might with advantage receive attention as tending to give increased efficiency:—

Carbines should form part of the permanent equipment of a battery, and bandoliers issued to gunners instead of ammunition pouches, the waist belt to be furnished with braces.

The *salutri* of Native Mountain Batteries to be mounted, as he often has hard work to do at night after a long march looking after sick mules, which he is unable to do if fatigued by marching.

The *koorjees* for line gear carried on the bare-backed Ordnance mules are useless they should be replaced by baggage saddles.

The *jhools* of Ordnance mules should be issued with a *newar* loop to act as a crupper and prevent them being blown up in a high wind.

The *jhools* of transport mules with batteries are unsatisfactory, being cumbersome to load and very heavy. It is suggested that a blanket and stout canvas sheet as a *jhool* should be issued in their place. On the line of march the blanket would be carried under the saddle and the sheet on top of the saddle.

A light shovel might well replace the present pattern spade, and the material of which the sickles are made be improved.

The picketing peg issued to Native Mountain Batteries is too light, the same picketing peg as that issued to Mule Corps is much better.

When *poshteens* are issued a larger size is required for gunners, than that issued to the remainder of the troops.

## ENGINEERS.

The working of the two companies of Sappers and Miners and field engineering work with the force was most satisfactory.

Every description of field engineering including hutting, bridging, roadmaking, demolishments, entanglements and field works, was carried out most creditably



to all concerned, and under climatic difficulties and hardships it would be difficult to parallel.

The services rendered to the force by the engineers have been invaluable, and their aptitude and skill showed a high state of efficiency and training.

The following points have been brought to notice as conducive to increased efficiency :—

One Native Officer for each section of Sappers and Miners would be an advantage. At present there are four sections to a Company of Sappers and Miners and only three native officers.

The custom of supplying old detonators No. 8 for gun-cotton cannot be too strongly condemned, as the missfires from old detonators are most dangerous to life.

The detonators issued from Fort William were of dates between 1895 and 1899 and were practically useless; those of 1899 averaging 30 *per cent.* missfires. This matter has, I understand, been represented on previous expeditions, and I am of opinion that no detonators should be retained, or issued, after three years in store, as they rapidly deteriorate.

The instantaneous fuze was found quite unreliable and useless.

Wire, plain or barbed, should be kept in readiness at Arsenals carefully coiled on light drums, giving a total gross weight of one maund each.

In gun-cotton pierced for 1" and 2" primers the hole for the latter should be 2" in diameter and a larger primer made to fit the hole.

Magnesium wire should be added to the equipment of Sappers and Miners.

Hand grenades would be very useful for house fighting, and would have been invaluable in the village fighting in Tibet.

Four hundred and forty yards electric leads should be supplied, and commercial leads attached to electric detonators.

A collapsible megaphone should be supplied to companies.

The four hand jumpers be replaced by 4 1" jumpers 2½' long, and 4 1" jumpers 4½' long, as being more efficient and easier worked.

#### FIELD ENGINEERING.

Captain Elliott's report gives the engineering operations in considerable detail and needs little comment.

It clearly shows the vicissitudes undergone by the Gangtok-Nathu La road, owing to various orders. The estimate for this road was largely exceeded owing to a variety of causes, in part due to these orders.

The work was re-started at the worst time of the year and a new staff, unfamiliar with the country, put in charge just as I was leaving for Gyantse and Lhasa.

The Communication staff were devoting their whole attention to moving forward supplies and military stores, and the engineering work on this new road was thus handicapped, as the engineers had largely to make their own arrangements for forwarding tents, tools, clothing and supplies. Thus cooly corps which were sent up with commendable promptitude could not be usefully employed and money was wasted.

The survey and laying out the track took longer than I should have expected; and for economy the Cooly Corps should not have come up until this was nearly completed.

The transfer of the Teesta road to military charge at this time and the great exertions necessary to keep it open for carts took up a number of local coolies, who would otherwise have been available on the new road, and aggravated the scarcity of tools, etc.

The actual Cooly Corps sent up also were not always of the best stamp to stand the exceptional rains of Sikkim. All these various causes combined to make the road cost a good deal more than it need have done.

It would appear well if some permanent arrangements were made at certain centres of labour by which a Cooly Corps could be furnished with a suitable supervising establishment and artificers to make it properly efficient.

This has been proposed on previous occasions, I understand, but when Cooly Corps were wanted for road-making in the present expedition they had to be ex-



temporized as usual, with the result that a proper supervising establishment was not forthcoming and that instead of bringing their tools, etc., with them they had to be equipped at the base.

A very trifling annual expenditure at certain centres, would enable the Military or Public Works to keep up a register of suitable men for supervising and artificer establishment who were prepared to come forward on service, somewhat on the same lines as was proposed for the non-combatants technical branch of the Railway Company. A due reserve of tools might also be maintained at these centres or in arsenals, available for the equipment of the corps.

Suitable tents might also be kept in or made available from the arsenals.

Equipment Tables should be made out so that an officer having to raise a Cooly Corps for road work would know what was wanted instead of having to think out everything *de novo*.

#### INFANTRY.

The infantry with the force was :—

- $\frac{1}{2}$  battalion Royal Fusiliers.
- 19th Punjabis.
- 23rd and 32nd Pioneers.
- 40th Pathans.
- 8th Gurkhas.

Of the above the 23rd and 32nd Pioneers and 8th Gurkhas have served throughout the campaign, during the trying winter operations of 1903-04.

The Wing Royal Fusiliers and 40th Pathans joined the force in June 1904 and the 19th Punjabis a month later.

The infantry taking part in the winter operations of 1903-04 had excessively trying times, calling for great fortitude and endurance, long marches at great attitude with most trying climatic conditions. The Pioneers had also roads to construct in frozen soil and under great difficulties, whilst throughout the strictest military precautions had to be taken. Under all these hardships the men played up splendidly and performed their onerous duties in the most soldier-like manner, whilst excellent discipline was maintained.

During the second stage of the operations there was a good deal of fighting in and around Gyantse in which all the troops except the 19th Punjabis were more or less engaged. The training and leading of the men was on the whole excellent, especially that of 8th Gurkhas; and our small losses in action may be attributed to a great extent to the careful training the troops had received in peace time. Some of the native units were not so well up in signalling as desirable, and the loading and care of transport at first was a little defective, otherwise there were no points noticed requiring improvement. On the whole the infantry engaged in the campaign were most efficient and rather above the general average.

The following points have been brought to notice in which some improvements might be made :—

It should be more clearly understood that the wide extensions suitable for advancing to the fire position are not intended for advancing to the assault.

#### British Infantry.

The metal *pakhals* were found to wear out and leak badly, where the hose pipe joins the zinc body, and a better attachment seems desirable.

Cooking pots are very heavy and require one mule *per* company to carry them.

Aluminium cooking pots are recommended, when the cooking pots of two companies could be carried by one mule.

Softer material should be used for the men's braces and straps.

The provision of a percentage of cutting tools is much required. Twenty-five *kukris per* company would be most useful in camp and could be carried by the men.

A small number of waterproof capes, say 20 *per* battalion should form part of the Field Service Equipment, and are very necessary for guard duties in rainy countries.



Each man carried one day's rations on his person, and his great coat, *poshteen* or "British warm coat" on his back. The obligatory mules for great coats were thus available for other purposes.

The number of *pakhals* taken was reduced to one *per* company.

A large saving in tentage was effected by using 45 lbs. bell-tents with 10 fighting men or 12 followers in each tent; the tents proved satisfactory.

The regimental reserve ammunition was increased to 100 rounds *per* man.

Baggage was of course increased by need of special warm clothing.

The allowance of mules for coffee-shops was increased to one *per* company as the supply could not depend on providing extras.

A certain number of mules was allowed for officers' mess and no private transport allowed.

#### *Native troops.*

*Pioneer Regiments.*—A clasp knife should be supplied to all havildars of Pioneer Regiments for cutting fuzes, and a variety of other purposes, for which at present no provision is made.

The modern pattern tool-box supplied to Pioneer Regiments is very heavy and should be replaced by the Madras Sappers and Miners pattern. The Madras Sappers and Miners have also a much superior pattern of crowbar crate and their introduction as a universal pattern is recommended.

Twenty lbs. nails and 20 lbs. screws would be a useful addition to the Pioneer Field Equipment, also a set of farriers' tools to enable them to shoe their own equipment mules.

Four mason's trowels and hammers *per* company are recommended for peace training and work.

In order to suit the double company organisation and make each double company complete, the following increases are necessary to Field Service Regulations, N. I., Table XI:—

Boxes, wooden, for detonators,	increase from 2 to 4.
" " " for safety fuze	" " "
Keys, Plugs, G. S.	" " "
Spring balances (Salters)	" " "

No extra carriage would be required for above increases.

*All Native units.*—Bill hooks should be replaced by *kukris* and each company carry 25 on men's persons.

Twenty waterproof capes *per* battalion should be issued as part of Field Service Equipment.

The supply of Mekometers (one *per* battalion) is inadequate, they should be issued at the rate of one *per* double company and one for each machine gun section.

#### SUPPLY AND TRANSPORT.

The extraordinary difficulties that this department had to meet were successfully coped with; and officers and subordinates worked loyally and well and carried everything through to a successful issue in spite of all kinds of disease and adverse climatic conditions in a most difficult country.

2. The present organisation of transport into mule corps has shown good results and animals are undoubtedly better attended to than formerly.

3. It would, I think, be advantageous to arm a proportion of the mule drivers with carbines; say 10 men *per* troop, which would lessen the number of rifles required as baggage guard.

It was found that one man could look after four mules efficiently in camp; and in order to save transport, which was a matter of necessity in Tibet, it was found advisable to leave 80 drivers *per* corps in Chumbi and replace them by a company of infantry. The infantry acted as drivers and guard on the line of march and assisted the mule drivers in camp, though as regards grooming, etc., each mule driver had charge of four mules.



Had ten mule drivers *per* troop been armed with carbines, this would not have been necessary and the efficiency of the corps would have been increased. Many of the mule drivers are of a stamp who could be armed.

Should this change ever be introduced, I would suggest that the men armed be given Re. 1 extra *per mensem* and classed as fighting men. This would be much appreciated by the mule drivers and be promotion and a distinction to them which could not but act beneficially on the remainder of the drivers; as naturally the best men only would be armed.

4. Temporary transport corps when raised should always have a considerable percentage of trained transport reservists drafted into them to instruct the others, otherwise great difficulty is experienced in having raw men on service and many animals suffer in consequence.

The Tibet Pony Corps which was raised locally with all untrained drivers was quite inefficient for a long time from this cause, and a great many animals were lost in consequence.

5. Officers appointed to cooly or other temporary transport corps should be able to talk the language of the men whom they are to command if possible.

Tarpaulins are weighty and wear out soon. Willesden rot proof canvas is lighter and more durable.

The old pattern 45lbs. Bell tent is much more suitable and economical than the 20lbs. tents authorised for mule corps. The 45lbs. tent holds 12 drivers easily. The 20lb. tent barely accommodates four.

6. Sword-bayonets for drivers are useless and get in the way. *Kukris* would be much more serviceable in every way and are light and handy.

Bamboo triangles are no longer required on field service and should be struck out. Spring balances can always be suspended on a piece of wood held by two men, or other simple arrangement.

It was found that considerable reductions could be made in the corps gear and establishment without loss of efficiency.

The spare animals were 2 *per cent.* with regimental baggage and 4 *per* troop with the corps, about 6 *per cent.* in all.

It was found that instead of each animal carrying a proportion of its fodder for the day, a custom which led to sore backs, it was better to carry this in bulk on separate mules, and instead that each driver divided his kit in three waterproof bags and thus distributed his kit over the three mules in his charge. This saved much transport and worked satisfactorily.

Each mule carried one or two days' grain extra to its load.

7. The supplies sent up were on the whole very good except the rum which was of inferior quality and taste.

To guard against deterioration from the heavy rains, perishable articles were sealed in tins; this saved much loss and proved satisfactory.

Some emergency rations for the troops might also have been given as well as a ration of Erbswurst consolidated soup, both of which would have been found most useful for issue on occasions when fuel was scarce and ordinary food difficult to cook.

8. The material of the warm pyjamas issued to native troops is not good and soon wears out and tears easily. The life of a pair of pyjamas on service is only about two months.

Puttoo pyjamas, costing less, were found to be far more durable.

9. Poshteens when issued to British troops should be of larger size than those supplied.

The waterproof sheets of brown material issued to the Fusiliers were unsatisfactory; the old pattern white waterproof sheet was found superior.

10. The variety of transport employed with the force was great and comprised Mule Corps, Cooly Corps, *Ekka* Corps, Donkey Corps, Draught and Pack Bullock Corps, and draught and pack *yaks*. Of the above the mule corps were undoubtedly the best transport and were very efficient. The Cooly Corps also worked very well over difficult passes and in most trying weather and were generally of a suitable stamp of men. The *Ekka* Corps were got up to the high plateaux beyond



Phari with great difficulty as the *ekkas* had to be carried over in pieces, but when once started and acclimatised they did excellent work between Phari and Kangma and proved invaluable.

*Yaks* were also trained to go in *ekkas* and worked very well in them, and in fact did much better as draught animals than as pack.

It would, I think, be advisable for Government to have some sealed pattern form of light draught cart suitable for the hills which should be kept as reserve mobilisation stores.

Recent expeditions in several parts of the world have proved the value of *ekkas*, but they are difficult to get quickly in any numbers and are not always of the best and most durable type. The first instalment of *ekkas* sent up was a sort of bazaar tumtum with 'C' springs which was not suited to rough work over bad roads. Lieutenant Wood of the 5th Dragoon Guards, Commanding the 1st *Ekka* Corps at Gangtok, designed and built a very neat light cart suitable for draught purposes in the hills, drawn by a small pony with ease over steep roads, which was found to work well, and carried five maunds. This cart seemed a very suitable one for hill roads and is well deserving of further attention from the transport authorities for further experiment and possible adoption as a sealed pattern.

It has the additional advantage that it can readily be taken to pieces for transportation over rough passes and loaded on two mules or four coolies.

The Government draught and pack bullocks did well, especially the former; but they suffered a great deal from foot and mouth disease as well as rinderpest;

The Donkey Corps organised by Captain Pollok-Morris, Black Watch, was very useful between Dochen and the Brahmaputra. Donkeys are very plentiful throughout Tibet and though small and rather slow can carry their two maunds over 10 or 12 miles a day for some days running, providing they get sufficient grazing. They were better than *yaks*.

*Yaks* as pack animals were not a success. All those sent by the Nepal Durbar some 3,500, died of disease before they arrived in the Chumbi valley. Of some 1,500 raised at Phari and further on a great many succumbed to the hard work with scanty grazing. They seemed unable to stand any sustained effort and wanted two or three days' rest after each march, and good grazing.

As draught animals in *ekkas* they afterwards in the summer months did much better; but the grazing was then better, and even so they required every alternate day off.

The following is a comparison of certain forms of transport used on the Tibetan highlands, assuming units to carry three days' rations and wood and (except for *yaks* and coolies), three days' grain and forage:—

Mule Corps	100 mules	6* per cent. spare	22† maunds daily food	140† maunds net for troops.
Pony Corps	100 ponies	6 ditto	22 ditto	140 ditto
Pack Yaks	100 yaks	50 ditto	2 ditto	80 ditto
<i>Ekkas</i> .	100 ponies	10 ditto	26 ditto	300 ditto
Do.	100 yaks	50 ditto	3 ditto	200 ditto
Coolies	100 coolies	6 ditto	5½ ditto	50 ditto

#### ORDNANCE.

It would always be advisable in any future expedition to place an Ordnance Officer in charge of the Ammunition Column.

The boxes in which shell were packed and sent up were badly made and in many cases fell to pieces and would not stand the hard wear and tear of being transported hundreds of miles.

\* The amount of spare found necessary.

† Daily supply requirements in maunds *per diem* for number of animals specified and establishments.

‡ Net maundage power available for baggage of troops exclusive of spare animals and those required for the gear and supplies of the transport unit:—

Men's kits	.	.	.	.	40 lbs.
Tentage	.	.	.	.	12 men to 45 lbs. tent.





## SIGNALLING.

The signalling with the force was on the whole efficiently carried out, but Tibet was found a much more difficult country to signal in than had been imagined, and any long distance signalling was very difficult, owing to the tortuous valleys and tumbled mass of mountains, too high or difficult to ascend.

The supply of signalling equipment issued to native regiments is insufficient and should be doubled as far as helios and B. B. lamps are concerned so as to make double companies independent.

## FIELD TREASURE.

The Treasure boxes sent up were of very inferior construction; and properly made boxes for Treasure, like ammunition boxes with indentations for seals are necessary.

The present boxes as supplied came to pieces with long wear and tear and the seals get broken at once so that on a very long journey where guards are frequently changed it is impossible to tell if any tampering has taken place, as was demonstrated by a box from which some Rs. 400 had been extracted.

A Field Pay Examiner should, I think, invariably be appointed to each Field Force, as tending to much simplify accounts and subsequent pay objection cases.

## VETERINARY.

The Veterinary arrangements with the force were well attended to by Captain R. C. Moore, A.V.D., who had four additional Veterinary Officers working under him.

The working of the Veterinary Department separately was found to work well.

Great strain was thrown on the Veterinary Officers with the force, as in addition to the severe climate and high altitudes, they had to cope with an extraordinary variety of contagious diseases, such as anthrax, rinderpest, glanders, pleuropneumonia, foot and mouth and epizootic-lymphangitis, besides aconite and rhododendron poisoning, and the ordinary diseases and sores incidental to perpetual work with a large number of animals of all kinds on service.

The work done by the Veterinary Department largely added to the efficiency of the transport and was quite satisfactory.

Captain Moore reports that the majority of the *salutaries* were bad, especially the temporary Veterinary Assistants; and that they had not received sufficient training in the diagnosis and treatment of diseases. Captain Moore's report has been forwarded to Principal Veterinary Officer.

## MEDICAL.

The report of Lieutenant-Colonel Waddell, C.I.E., I.M.S., Principal Medical Officer, to the force together with the Sanitary Report on the Lines of Communication by Major Aldridge, R.A.M.C., are attached and I have little to add thereto.

The medical arrangements with the force worked quite well and were adequate. The following few points I would, however, mention :—

- 1st.—That all British and Native Field Hospitals sent on any campaign should be so organised that they can at once be split up into sections without any further demand for extra establishments to enable them to act independently when required.
- 2nd.—The regulation dooly and stretchers were not suitable to maintain operations, being too heavy and cumbersome. The Amesbury dooly was found light and serviceable and Major Aldridge's hammock was found successful in place of the blanket stretchers.
- 3rd.—The formation of a small corps of hill bearers, suitable for works on high mountains would be useful, as the ordinary dooly bearer is quite useless above 9,000 feet.



## APPENDIX E.

### CONVENTION BETWEEN GREAT BRITAIN AND CHINA RELATING TO SIKKIM AND TIBET.

*Signed at Calcutta, 17th March, 1890.*

With regulations appended thereto, signed at Darjeeling, December 5, 1893.

#### ENGLISH TEXT.

Whereas Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India, and His Majesty the Emperor of China, are sincerely desirous to maintain and perpetuate the relations of friendship and good understanding which now exist between their respective Empires; and whereas recent occurrences have tended towards a disturbance of the said relations, and it is desirable to clearly define and permanently settle certain matters connected with the boundary between Sikkim and Tibet, Her Britannic Majesty and His Majesty the Emperor of China have resolved to conclude a Convention on this subject and have, for this purpose, named Plenipotentiaries, that is to say:

Her Majesty the Queen of Great Britain and Ireland, His Excellency the Most Honourable Henry Charles Keith Petty Fitzmaurice, G.M.S.I., G.C.M.G., G.M.I.E., Marquess of Lansdowne, Viceroy and Governor-General of India;

And His Majesty the Emperor of China, His Excellency Sheng Tai, Imperial Associate Resident in Tibet, Military Deputy Lieutenant Governor;

Who, having met and communicated to each other their full powers and finding these to be in proper form, have agreed upon the following Convention in eight Articles:—

#### ARTICLE I.

The boundary of Sikkim and Tibet shall be the crest of the mountain range separating the water flowing into the Sikkim Teesta and its affluents from the water flowing into the Tibetan Mochu and northwards into other Rivers of Tibet. The line commences at Mount Gipmochi on the Bhutan Frontier, and follows the abovementioned water-parting to the point where it meets Nepal territory.

#### ARTICLE II.

It is admitted that the British Government, whose Protectorate over the Sikkim State is hereby recognised, has direct and exclusive control over the internal administration and foreign relations of that State, and except through and with the permission of the British Government, neither the Ruler of the State nor any of its officers shall have official relations of any kind, formal or informal, with any other country.

#### ARTICLE III.

The Government of Great Britain and Ireland and the Government of China engage reciprocally to respect the boundary as defined in Article I, and to prevent acts of aggression from their respective sides of the frontier.

#### ARTICLE IV.

The question of providing increased facilities for trade across the Sikkim-Tibet Frontier will hereafter be discussed with a view to a mutually satisfactory arrangement by the High Contracting Powers.



## ARTICLE V.

The question of pasturage on the Sikkim side of the frontier is reserved for further examination and future adjustment.

## ARTICLE VI.

The High Contracting Powers reserve for discussion and arrangement the method in which official communications between the British authorities in India and the authorities in Tibet shall be conducted.

## ARTICLE VII.

Two joint Commissioners shall, within six months from the ratification of this Convention, be appointed, one by the British Government in India, the other by the Chinese Resident in Tibet. The said Commissioners shall meet and discuss the questions, which, by the last three preceding Articles, have been reserved.

## ARTICLE VIII.

The present Convention shall be ratified, and the ratifications shall be exchanged in London as soon as possible after the date of the signature thereof.

In witness whereof the respective negotiators have signed the same, and affixed thereunto the seals of their arms.

Done in quadruplicate at Calcutta, this 17th day of March, in the year of our Lord 1890, corresponding with the Chinese date, the 27th day of the 2nd moon of the 16th year of Kuang Hsu.

(L. S.) LANSDOWNE,

(L. S.) *Signature of the Chinese Plenipotentiary.*

Regulations regarding Trade, Communication, and Pasturage to be appended to the Sikkim-Tibet Convention of 1890.—Signed at Darjeeling, December 5, 1893.

I. A trade mart shall be established at Yatung on the Tibetan side of the frontier, and shall be open to all British subjects for purposes of trade from the 1st day of May 1894. The Government of India shall be free to send officers to reside at Yatung to watch the conditions of British trade at that mart.

II. British subjects trading at Yatung shall be at liberty to travel freely to and fro between the frontier and Yatung, to reside at Yatung, and to rent houses and godowns for their own accommodation and the storage of their goods. The Chinese Government undertake that suitable buildings for the above purposes shall be provided for British subjects and also that a special and fitting residence shall be provided for the officer or officers appointed by the Government of India under Regulation I to reside at Yatung. British subjects shall be at liberty to sell their goods to whomsoever they please, to purchase native commodities in kind or in money, to hire transport of any kind, and in general to conduct their business transactions in conformity with local usage and without any vexatious restrictions. Such British subjects shall receive efficient protection for their persons and property. At Lang-jo and Ta-chun between the Frontier and Yatung, where rest-houses have been built by the Tibetan authorities, British subjects can break their journey in consideration of a daily rent.

III. Import and export trade in the following articles: arms, ammunition, military stores, salt, liquors, and intoxicating or narcotic drugs, may, at the option of either Government, be entirely prohibited, or permitted only on such conditions as either Government, on their own side, may think fit to impose.

IV. Goods, other than goods of the descriptions enumerated in Regulation III, entering Tibet from British India, across the Sikkim-Tibet frontier, or *vice versa*, whatever their origin, shall be exempt from duty for a period of five years, commencing from the date of the opening of Yatung to trade, but after the expiration



of this term, if found desirable, a tariff may be mutually agreed upon and enforced.

Indian tea may be imported into Tibet at a rate of duty not exceeding that at which Chinese tea is imported into England, but trade in Indian tea shall not be engaged in during the five years for which other commodities are exempt.

V. All goods on arrival at Yatung, whether from British India or from Tibet, must be reported at the Customs Station there for examination, and the report must give full particulars of the description, quantity, and value of the goods.

VI. In the event of trade disputes arising between British and Chinese or Tibetan subjects in Tibet, they shall be inquired into and settled in personal conference by the Political Officer for Sikkim and the Chinese frontier officer. The object of personal conference being to ascertain facts and do justice, where there is a divergence of views, the law of the country to which the defendant belongs shall guide.

VII. Despatches from the Government of India to the Chinese Imperial Resident in Tibet shall be handed over by the Political Officer for Sikkim to the Chinese Frontier Officer, who will forward them by special courier.

Despatches from the Chinese Imperial Resident in Tibet to the Government of India will be handed over by the Chinese Frontier Officer to the Political Officer in Sikkim, who will forward them as quickly as possible.

VIII. Despatches between the Chinese and Indian officials must be treated with due respect, and couriers will be assisted in passing to and fro by the officers of each Government.

IX. After the expiration of one year from the date of the opening of Yatung, such Tibetans as continue to graze their cattle in Sikkim will be subject to such Regulations as the British Government may from time to time enact for the general conduct of grazing in Sikkim. Due notice will be given of such Regulations.

#### GENERAL ARTICLES.

I. In the event of disagreement between the Political Officer for Sikkim and the Chinese Frontier Officer, each official shall report the matter to his immediate superior, who in turn, if a settlement is not arrived at between them, shall refer such matter to their respective Governments for disposal.

II. After the lapse of five years from the date on which these Regulations shall come into force, and on six months' notice given by either party, these Regulations shall be subject to revision by Commissioners appointed on both sides for this purpose, who shall be empowered to decide and adopt such amendments and extensions as experience shall prove to be desirable.

III. It having been stipulated that Joint Commissioners should be appointed by the British and Chinese Governments under the VIIth Article of the Sikkim-Tibet Convention to meet and discuss, with a view to the final settlement of the questions reserved under Articles IV, V, and VI of the said Convention; and the Commissioners thus appointed having met and discussed the questions referred to, namely, Trade, Communications, and Pasturage, have been further appointed to sign the Agreement in nine Regulations and three General Articles now arrived at, and to declare that the said nine Regulations and the three General Articles form part of the Convention itself.

In witness whereof the respective Commissioners have hereto subscribed their names.

Done in quadruplicate at Darjeeling, this 5th day of December, in the year 1893, corresponding with the Chinese date the 28th day of the 10th moon of the 19th year of Kuang Hsu.

(L. S.) A. W. PAUL,  
*British Commissioner.*

(L. S.) HO CHANG-JUNG,  
JAMES H. HART,  
*Chinese Commissioners.*



## APPENDIX F.

### CONVENTION BETWEEN THE UNITED KINGDOM AND CHINA RESPECTING TIBET.

*Signed at Peking, April 27th, 1906.*

(To which is annexed the Convention between the United Kingdom and Tibet signed at Lhasa, September 7, 1904.)

Whereas His Majesty the King of Great Britain and Ireland and of the British Dominions beyond the Seas, Emperor of India, and His Majesty the Emperor of China are sincerely desirous to maintain and perpetuate the relations of friendship and good understanding which now exist between their respective Empires;

And whereas the refusal of Tibet to recognise the validity of or to carry into full effect the provisions of the Anglo-Chinese Convention of March 17th, 1890, and Regulations of December 5th, 1893, placed the British Government under the necessity of taking steps to secure their rights and interests under the said Convention and Regulations;

And whereas a Convention of ten articles was signed at Lhasa on September 7th, 1904, on behalf of Great Britain and Tibet, and was ratified by the Viceroy and Governor-General of India on behalf of Great Britain on November 11th, 1904, a declaration on behalf of Great Britain modifying its terms under certain conditions being appended thereto;

His Britannic Majesty and His Majesty the Emperor of China have resolved to conclude a Convention on this subject and have for this purpose named Plenipotentiaries, that is to say:—

His Majesty the King of Great Britain and Ireland:

Sir Ernest Mason Satow, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, his said Majesty's Envoy Extraordinary and Minister Plenipotentiary to His Majesty the Emperor of China;

and His Majesty the Emperor of China:

His Excellency Tong Shoa-yi, His said Majesty's High Commissioner Plenipotentiary and a Vice-President of the Board of Foreign Affairs;

who having communicated to each other their respective full powers and finding them to be in good and true form have agreed upon and concluded the following Convention in six articles:—

#### ARTICLE I.

The Convention concluded on September 7th, 1904, by Great Britain and Tibet, the texts of which in English and Chinese are attached to the present Convention as an annexe, is hereby confirmed, subject to the modification stated in the declaration appended thereto, and both of the High Contracting Parties engage to take at all times such steps as may be necessary to secure the due fulfilment of the terms specified therein.

#### ARTICLE II.

The Government of Great Britain engages not to annex Tibetan territory or to interfere in the administration of Tibet. The Government of China also undertakes not to permit any other foreign State to interfere with the territory or internal administration of Tibet.



## ARTICLE III.

The concessions which are mentioned in Article 9 (*d*) of the Convention concluded on September 7th, 1904, by Great Britain and Tibet are denied to any State or to the subject of any State other than China, but it has been arranged with China that at the trade marts specified in Article 2 of the aforesaid Convention, Great Britain shall be entitled to lay down telegraph lines connecting with India.

## ARTICLE IV.

The provisions of the Anglo-Chinese Convention of 1890 and Regulations of 1893 shall, subject to the terms of this present Convention and annexe thereto, remain in full force.

## ARTICLE V.

The English and Chinese texts of the present Convention have been carefully compared and found to correspond but in the event of there being any difference of meaning between them the English text shall be authoritative.

## ARTICLE VI.

This Convention shall be ratified by the Sovereigns of both countries and ratifications shall be exchanged at London within three months after the date of signature by the Plenipotentiaries of both Powers.

In token whereof the respective Plenipotentiaries have signed and sealed this Convention, four copies in English and four in Chinese.

Done at Peking this Twenty-seventh day of April, one thousand nine hundred and six, being the fourth day of the fourth month of the thirty-second year of the reign of Kuang-hsü.

(L. S.) ERNEST SATOW.

*(Signature and seal of the Chinese Plenipotentiary.)*

## ANNEX.

Convention between the Governments of Great Britain and Tibet signed at Lhasa on the 7th September 1904.

Declaration signed by His Excellency the Viceroy and Governor General of India on behalf of the British Government and appended to the ratified Convention of the 7th September 1904.

## Convention between the Governments of Great Britain and Tibet.

*(Signed also in Chinese.)*

Whereas doubts and difficulties have arisen as to the meaning and validity of the Anglo-Chinese Convention of 1890, and the Trade Regulations of 1893, and as to the liabilities of the Tibetan Government under these agreements; and Whereas recent occurrences have tended towards a disturbance of the relations of friendship and good understanding which have existed between the British Government and the Government of Tibet; and Whereas it is desirable to restore peace and amicable relations, and to resolve and determine the doubts and difficulties as aforesaid, the said Governments have resolved to conclude a Convention with these objects, and the following articles have been agreed upon by Colonel F. E



Younghusband, C.I.E., in virtue of full powers vested in him by His Britannic Majesty's Government and on behalf of that said Government, and Lo-Sang, Gyal-tsen, the Ga-den Ti-Rimpoche, and the representatives of the Council, of the three monasteries, Se-ra, Dre-pung and Ga-den, and of the ecclesiastical and lay officials of the National Assembly on behalf of the Government of Tibet.

## I

The Government of Tibet engages to respect the Anglo-Chinese Convention of 1890 and to recognise the frontier between Sikkim and Tibet, as defined in Article I of the said Convention, and to erect boundary pillars accordingly.

## II.

The Tibetan Government undertakes to open forthwith trade marts to which all British and Tibetan subjects shall have free rights of access at Gyantse and Gartok, as well as at Yatung.

The Regulations applicable to the trade mart at Yatung, under the Anglo-Chinese Agreement of 1893, shall, subject to such amendments as may hereafter be agreed upon by common consent between the British and Tibetan Governments, apply to the marts above mentioned.

In addition to establishing trade marts at the places mentioned the Tibetan Government undertakes to place no restrictions on the trade by existing routes, and to consider the question of establishing fresh trade marts under similar conditions if development of trade requires it.

## III.

The question of the amendment of the Regulations of 1893 is reserved for separate consideration, and the Tibetan Government undertakes to appoint fully authorised delegates to negotiate with representatives of the British Government as to the details of the amendments required.

## IV.

The Tibetan Government undertakes to levy no dues of any kind other than those provided for in the tariff to be mutually agreed upon.

## V.

The Tibetan Government undertakes to keep the roads to Gyantse and Gartok from the frontier clear of all obstruction and in a state of repair suited to the needs of the trade, and to establish at Yatung, Gyantse and Gartok, and at each of the other trade marts that may hereafter be established, a Tibetan Agent who shall receive from the British Agent appointed to watch over British trade at the marts in question any letter which the latter may desire to send to the Tibetan or to the Chinese authorities. The Tibetan Agent shall also be responsible for the due delivery of such communications and for the transmission of replies.

## VI.

As an indemnity to the British Government for the expense incurred in the despatch of armed troops to Lhasa, to exact reparation for breaches of treaty



obligations, and or the insults offered to and attacks upon the British Commissioner and his following and escort, the Tibetan Government engages to pay a sum of pounds five hundred thousand—equivalent to rupees seventy-five lakhs—to the British Government.

The indemnity shall be payable at such place as the British Government may from time to time, after due notice, indicate whether in Tibet or in the British districts of Darjeeling or Jalpaiguri, in seventy-five annual instalments of rupees one lakh each on the 1st January in each year, beginning from the 1st January 1906.

#### VII.

As security for the payment of the above-mentioned indemnity, and for the fulfilment of the provisions relative to trade marts specified in Articles II, III, IV and V, the British Government shall continue to occupy the Chumbi Valley until the indemnity has been paid and until the trade marts have been effectively opened for three years, whichever date may be the later.

#### VIII.

The Tibetan Government agrees to raze all forts and fortifications and remove all armaments which might impede the course of free communication between the British frontier and the towns of Gyantse and Lhasa.

#### IX.

The Government of Tibet engages that, without the previous consent of the British Government—

- (a) no portion of Tibetan territory shall be ceded, sold, leased, mortgaged or otherwise given for occupation, to any Foreign Power ;
- (b) no such Power shall be permitted to intervene in Tibetan affairs.
- (c) no Representatives or Agents of any Foreign Power shall be admitted to Tibet :
- (d) no concessions for railways, roads, telegraphs, mining or other rights, shall be granted to any Foreign Power, or to the subject of any Foreign Power. In the event of consent to such concessions being granted, similar or equivalent concessions shall be granted to the British Government :
- (e) no Tibetan revenues, whether in kind or in cash, shall be pledged or assigned to any Foreign Power, or to the subject of any Foreign Power.

#### X.

In witness whereof the negotiators have signed the same, and affixed thereunto the seals of their arms.

Done in quintuplicate at Lhasa this 7th day of September in the year of our Lord one thousand nine hundred and four, corresponding with the Tibetan date, the 27th day of the seventh month of the Wood Dragon year.

F. E. YOUNGHUSBAND, *Colonel,*

*British Commissioner.*

(Seals and signatures of the negotiators.)



In proceeding to the signature of the Convention, dated this day, the representatives of Great Britain and Tibet declare that the English text shall be binding.

F. E. YOUNGHUSBAND, *Colonel,*

*British Commissioner.*

(Seals and signatures of the negotiators.)

AMPTHILL,

*Viceroy and Governor-General of India.*

This Convention was ratified by the Viceroy and Governor-General of India in Council at Simla on the eleventh day of November, A.D., one thousand nine hundred and four.

S. M. FRASER,

*Secretary to the Government of India,  
Foreign Department.*

Declaration signed by His Excellency the Viceroy and Governor-General of India and appended to the ratified Convention of 7th September 1904.

His Excellency the Viceroy and Governor-General of India, having ratified the Convention which was concluded at Lhasa on 7th September 1904 by Colonel Younghusband, C.I.E., British Commissioner for Tibet Frontier Matters, on behalf of His Britannic Majesty's Governments; and by Lo-Sang Gyal-Tsen, the Gaden Ti-Rimpoche, and the representatives of the Council, of the three monasteries Sera, Drepung, and Ga-den, and of the ecclesiastical and lay officials of the National Assembly, on behalf of the Government of Tibet, is pleased to direct as an act of grace that the sum of money which the Tibetan Government have bound themselves under the terms of Article VI of the said Convention to pay to His Majesty's Government as an indemnity for the expenses incurred by the latter in connection with the despatch of armed forces to Lhasa, be reduced from Rs. 75,00,000 to Rs. 25,00,000; and to declare that the British occupation of the Chumbi valley shall cease after the due payment of three annual instalments of the said indemnity as fixed up the said Article, provided, however, that the trade marts as stipulated in Article II of the Convention shall have been effectively opened for three years as provided in Article VI of the Convention; and that, in the meantime, the Tibetans shall have faithfully complied with the terms of the said Convention in all other respects.

AMPTHILL,

*Viceroy and Governor-General of India.*

This Declaration was signed by the Viceroy and Governor-General of India in Council at Simla on the eleventh day of November, A.D., one thousand nine hundred and four.

S. M. FRASER,

*Secretary to the Government of India,  
Foreign Department.*



## APPENDIX G.

## TIBET TRADE REGULATIONS, 1908.

*Simla, the 15th May 1908.*

*Preamble.*—Whereas by Article I of the Convention between Great Britain and China on the 27th April 1906, that is the 4th day of the 4th moon of the 32nd year of Kwang Hsu, it was provided that both the High Contracting Parties should engage to take at all times such steps as might be necessary to secure the due fulfilment of the terms specified in the Lhasa Convention of 7th September 1904 between Great Britain and Tibet, the text of which in English and Chinese was attached as an Annex to the abovementioned Convention;

And whereas it was stipulated in Article III of the said Lhasa Convention that the question of the amendment of the Tibet Trade Regulations which were signed by the British and Chinese Commissioners on the 5th day of December 1893 should be reserved for separate consideration, and whereas the amendment of these Regulations is now necessary.

His Majesty the King of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, Emperor of India, and His Majesty the Emperor of the Chinese Empire have for this purpose named as their Plenipotentiaries, that is to say:

His Majesty the King of Great Britain and Ireland and of the British Dominions beyond the Seas, Emperor of India,—Mr. E. C. Wilton, C.M.G.

His Majesty the Emperor of the Chinese Empire—His Majesty's Special Commissioner Chang Yin Tang.

And the High Authorities of Tibet have named as their fully authorised Representative to act under the directions of Chang Tachen and take part in the negotiations—The Tsarong Shape, Wang Chuk Gyalpo.

And whereas Mr. E. C. Wilton and Chang Tachen have communicated to each other since their respective full powers and have found them to be in good and true form and have found the authorisation of the Tibetan Delegate to be also in good and true form, the following amended Regulations have been agreed upon.

I.—The Trade Regulations of 1893 shall remain in force in so far as they are not inconsistent with these Regulations.

II.—The following places shall form, and be included within, the boundaries of the Gyantse mart:

(a) The line begins at the Chumig Dangsang (Chhu-Mig-Dangs-Sangs) north-east of the Gyantse Fort, and thence it runs in a curved line, passing behind the Pekor-Chode (Dpal-Hkhor-Choos-Sde), down to Chag-Dong-Gang (Phyag-Gdong-Sgang); thence passing straight over the Nyan Chu, it reaches the Zamsa (Zam-Srag). (b) From the Zamsa the line continues to run, in a south-eastern direction, round to Lachi-To (Gla-Dkyii-Stod), embracing all the farms on its way, *viz.*, The Lahong; the Hogtso (Hog-Mtsho); The Tong-Chung-Shi (Grong-Chhung-Gshis); and the Rabgang (Rab-Sgang), etc; (c) From Lachi-To the line runs to the Yutog (Gyu-Thog), and thence runs straight, passing through the whole area of Gamkar-Shi (Ragal-Mkhar-Gshis), to Chumig Dangsang.

As difficulty is experienced in obtaining suitable houses and godowns at some of the marts, it is agreed that British subjects may also lease lands for the building of houses and godowns at the marts, the locality for such building sites to be marked out specially at each mart by the Chinese and Tibetan authorities in consultation with the British Trade Agent. The British Trade Agents and British subjects shall not build houses and godowns except in such localities, and this arrangement shall not be held to prejudice in any way the administration of the Chinese and Tibetan Local Authorities over such localities, or the right of British subjects to rent houses and godowns outside such localities for their own accommodation and the storage of their goods.



British subjects desiring to lease building sites shall apply through the British Trade Agent to the Municipal Office at the mart for a permit to lease. The amount of rent, or the period or conditions of the lease, shall then be settled in a friendly way by the lessee and the owner themselves. In the event of a disagreement between the owner and lessee as to the amount of rent or the period or conditions of the lease the case will be settled by the Chinese and Tibetan Authorities in consultation with the British Trade Agent. After the lease is settled, the sites shall be verified by the Chinese and Tibetan Officers of the Municipal Office conjointly with the British Trade Agent. No building is to be commenced by the lessee on a site before the Municipal Office has issued him a permit to build, but it is agreed that there shall be no vexatious delays in the issue of such permit.

III.—The administration of the trade marts shall remain with the Tibetan Officers, under the Chinese Officers' supervision and directions.

The Trade Agents at the marts and Frontier Officers shall be of suitable rank, and shall hold personal intercourse and correspondence one with another on terms of mutual respect and friendly treatment.

Questions which cannot be decided by agreement between the Trade Agents and the Local Authorities shall be referred for settlement to the Government of India and the Tibetan High Authorities at Lhasa. The purport of a reference by the Government of India will be communicated to the Chinese Imperial Resident at Lhasa. Questions which cannot be decided by agreement between the Government of India and the Tibetan High Authorities at Lhasa shall, in accordance with the terms of Article I of the Peking Convention of 1906, be referred for settlement to the Governments of Great Britain and China.

IV.—In the event of disputes arising at the marts between British subjects and persons of Chinese and Tibetan nationalities, they shall be enquired into and settled in personal conference between the British Trade Agent at the nearest mart and the Chinese and Tibetan Authorities of the Judicial Court at the mart, the object of personal conference being to ascertain facts and to do justice. Where there is a divergence of view the law of the country to which the defendant belongs shall guide. In any of such mixed cases, the Officer, or Officers of the defendant's nationality shall preside at the trial; the Officer, or Officers of the plaintiff's country merely attending to watch the course of the trial.

All questions in regard to rights, whether of property or person, arising between British subjects, shall be subject to the jurisdiction of the British authorities.

British subjects, who may commit any crime at the marts or on the routes to the marts, shall be handed over by the local authorities to the British Trade Agent at the mart nearest to the scene of offence, to be tried and punished according to the laws of India, but such British subjects shall not be subjected by the local authorities to any ill-usage in excess of necessary restraint.

Chinese and Tibetan subjects, who may be guilty of any criminal act towards British subjects at the marts or on the routes thereto, shall be arrested and punished by the Chinese and Tibetan Authorities according to law.

Justice shall be equitably and impartially administered on both sides.

Should it happen that Chinese or Tibetan subjects bring a criminal complaint against a British subject before the British Trade Agent, the Chinese or Tibetan Authorities shall have the right to send a representative, or representatives, to watch the course of trial in the British Trade Agent's Court. Similarly, in cases in which a British subject has reason to complain of a Chinese or Tibetan subject in the Judicial Court at the mart, the British Trade Agent shall have the right to send a representative to the Judicial Court to watch the course of trial.

V.—The Tibetan Authorities, in obedience to the instructions of the Peking Government, having a strong desire to reform the judicial system of Tibet, and to bring it into accord with that of Western nations, Great Britain agrees to relinquish her rights of extra-territoriality in Tibet, whenever such rights are relinquished in China, and when she is satisfied that the state of the Tibetan laws and the arrangements for their administration and other considerations warrant her in so doing.

VI.—After the withdrawal of the British troops, all the rest-houses, eleven in number, built by Great Britain upon the routes leading from the Indian frontier to



Gyantse, shall be taken over at original cost by China and rented to the Government of India at a fair rate. One-half of each rest-house will be reserved for the use of the British officials employed on the inspection and maintenance of the telegraph lines from the marts to the Indian frontier and for the storage of their materials, but the rest-houses shall otherwise be available for occupation by British, Chinese and Tibetan officers of respectability who may proceed to and from the marts.

Great Britain is prepared to consider the transfer to China of the telegraph lines from the Indian frontier to Gyantse when the telegraph lines from China reach that mart and in the meantime Chinese and Tibetan messages will be duly received and transmitted by the line constructed by the Government of India.

In the meantime China shall be responsible for the due protection of the telegraph lines from the marts to the Indian frontier and it is agreed that all persons damaging the lines or interfering in any way with them or with the officials engaged in the inspection or maintenance thereof shall at once be severely punished by the local authorities.

VII.—In law suits involving cases of debt on account of loans, commercial failure, and bankruptcy, the authorities concerned shall grant a hearing and take steps necessary to enforce payment; but, if the debtor plead poverty and be without means, the authorities concerned shall not be held responsible for the said debts, nor shall any public or official property be distrained upon in order to satisfy these debts.

VIII.—The British Trade Agents at the various trade marts now or hereafter to be established in Tibet may make arrangements for the carriage and transmission of their posts to and from the frontier of India. The couriers employed in conveying these posts shall receive all possible assistance from the local authorities whose districts they traverse and shall be accorded the same protection as the persons employed in carrying the despatches of the Tibetan Authorities. When efficient arrangements have been made by China in Tibet for a Postal Service, the question of the abolition of the Trade Agents' couriers will be taken into consideration by Great Britain and China. No restrictions whatever shall be placed on the employment by British officers and traders of Chinese and Tibetansubjects in any lawful capacity. The persons so employed shall not be exposed to any kind of molestation or suffer any loss of civil rights to which they may be entitled as Tibetan subjects, but they shall not be exempted from all lawful taxation. If they be guilty of any criminal act, they shall be dealt with by the local authorities according to law without any attempt on the part of their employer to screen or conceal them.

IX.—British officers and subjects, as well as goods, proceeding to the trade marts, must adhere to the trade routes from the frontier of India. They shall not, without permission, proceed beyond the marts, or to Gartok from Yatung and Gyantse, or from Gartok to Yatung and Gyantse, by any route through the interior of Tibet, but natives of the Indian frontier, who have already by usage traded and resided in Tibet, elsewhere than at the marts shall be at liberty to continue their trade, in accordance with the existing practice, but when so trading or residing they shall remain, as heretofore, amenable to the local jurisdiction.

X.—In cases where officials or traders, *en route* to and from India or Tibet are robbed of treasure or merchandise, public or private, they shall forthwith report to the Police officers, who shall take immediate measures to arrest the robbers, and hand them to the Local Authorities. The Local Authorities shall bring them to instant trial, and shall also recover and restore the stolen property. But, if the robbers flee to places out of the jurisdiction and influence of Tibet, and cannot be arrested, the Police and the Local Authorities shall not be held responsible for such losses.

XI.—For public safety tanks or stores of kerosene oil or any other combustible or dangerous articles in bulk must be placed far away from inhabited places at the marts.

British or Indian merchants, wishing to build such tanks or stores, may not do so until, as provided in Regulation II, they have made application for a suitable site.



XII.—British subjects shall be at liberty to deal in kind or in money, to sell their goods to whomsoever they please, to purchase native commodities from whomsoever they please, to hire transport of any kind, and to conduct in general their business transactions in conformity with local usage and without any vexatious restrictions or oppressive exactions whatever.

It being the duty of the Police and Local Authorities to afford efficient protection at all times to the persons and property of the British subjects at the marts, and along the routes to the marts, China engages to arrange effective police measures at the marts and along the routes to the marts. On due fulfilment of these arrangements, Great Britain undertakes to withdraw the Trade Agents' guards at the marts and to station no troops in Tibet so as to remove all cause for suspicion and disturbance among the inhabitants. The Chinese Authorities will not prevent the British Trade Agents holding personal intercourse and correspondence with the Tibetan officers and people.

Tibetan subjects trading, travelling or residing in India shall receive equal advantages to those accorded by this Regulation to British subjects in Tibet.

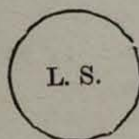
XIII.—The present Regulations shall be in force for a period of ten years reckoned from the date of signature by the two Plenipotentiaries as well as by the Tibetan Delegate; but if no demand for revision be made on either side within six months after the end of the first ten years, then the Regulations shall remain in force for another ten years, from the end of the first ten years; and so it shall be at the end of each successive ten years.

XIV.—The English, Chinese and Tibetan texts of the present Regulations have been carefully compared, and, in the event of any question arising as to the interpretation of these Regulations, the sense as expressed in the English text shall be held to be the correct sense.

XV.—The Ratifications of the present Regulations under the hand of His Majesty the King of Great Britain and Ireland, and of His Majesty the Emperor of the Chinese Empire, respectively, shall be exchanged at London and Peking within six months from the date of signature.

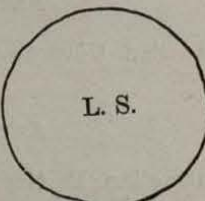
In witness whereof the two Plenipotentiaries and the Tibetan Delegate have signed and sealed the present Regulations.

Done in quadruplicate at Calcutta, this twentieth day of April, in the year of our Lord nineteen hundred and eight, corresponding with the Chinese date, the twentieth day of the third moon of the thirty-fourth year of Kuang Hsü.



Signature of

CHANG YIN TANG,  
*Chinese Special Commissioner.*



E. C. WILTON,  
*British Commissioner.*



Signature of

WANG CHUK GYALPO,  
*Tibetan Delegate.*

S. H. BUTLER,

*Offg. Secretary to the Government of India.*



## APPENDIX H.

### ANGLO-RUSSIAN CONVENTION OF 1907.

#### *Arrangement concerning Tibet.*

The Governments of Great Britain and Russia recognising the Suzerain rights of China in Tibet, and considering the fact that Great Britain, by reason of her geographical position, has a special interest in the maintenance of the *status quo* in the external relations of Tibet, have made the following arrangements :—

#### ARTICLE I.

The two High Contracting Parties engage to respect the territorial integrity of Tibet, and to abstain from all interference in the internal administration.

#### ARTICLE II.

In conformity with the admitted principle of the suzerainty of China over Tibet, Great Britain and Russia engage not to enter into negotiations with Tibet except through the intermediary of the Chinese Government. This engagement does not exclude the direct relations between British Commercial Agents and the Tibetan authorities provided for in Article V of the Convention between Great Britain and Tibet of the 7th September 1904, and confirmed by the Convention between Great Britain and China of the 27th April 1906; nor does it modify the engagements entered into by Great Britain and China in Article I of the said Convention of 1906.

It is clearly understood that Buddhists, subjects of Great Britain or of Russia, may enter into direct relations on strictly religious matters with the Dalai Lama and the other representatives of Buddhism in Tibet; the Governments of Great Britain and Russia engage, as far as they are concerned, not to allow those relations to infringe the stipulations of the present arrangement.

#### ARTICLE III.

The British and Russian Governments respectively engage not to send Representatives to Lhasa.

#### ARTICLE IV.

The two High Contracting Parties engage neither to seek nor to obtain, whether for themselves or their subjects, any concessions for railways, roads, telegraphs and mines, or other rights in Tibet.

#### ARTICLE V.

The two Governments agree that no part of the revenues of Tibet whether in kind or in cash, shall be pledged or assigned to Great Britain or Russia or to any of their subjects.

#### *Annex. to the arrangement between Great Britain and Russia concerning Tibet.*

Great Britain reaffirms the declaration, signed by His Excellency the Viceroy and Governor-General of India and appended to the ratification of the Convention of the 7th September, 1904, to the effect that the occupation of the Chumbi valley by British forces shall cease after the payment of three annual instalments of the indemnity of 25,00,000 rupees, provided that the trade marts mentioned in Article



II of that Convention have been effectively opened for three years, and that in the meantime the Tibetan authorities have faithfully complied in all respects with the terms of the said Convention of 1904. It is clearly understood that if the occupation of the Chumbi Valley by the British forces has, for any reason, not been terminated at the time anticipated in the above Declaration, the British Government will enter upon a friendly exchange of views on this subject.

The present Convention shall be ratified, and the ratifications exchanged at St. Petersburg as soon as possible.

In witness whereof the respective Plenipotentiaries have signed the present Convention and affixed thereto their seals.

Done in duplicate at St. Petersburg, the 18th (31st) August 1907.

(L. S.) A. NICOLSON.

(L. S.) ISWOLSKY.

(Translation.)

M. LE MINISTRE.

*St. Petersburg, Aug. 18(31) 1907.*

With reference to the Arrangement regarding Tibet, signed to-day, I have the honour to make the following Declaration to Your Excellency :—

“His Britannic Majesty's Government think it desirable, so far as they are concerned, not to allow, unless by a previous agreement with the Russian Government, for a period of three years from the date of the present communication, the entry into Tibet of any scientific mission whatever, on condition that a like assurance is given on the part of the Imperial Russian Government.

“His Britannic Majesty's Government propose, moreover, to approach the Chinese Government with a view to induce them to accept a similar obligation for a corresponding period; the Russian Government will, as a matter of course, take similar action.

“At the expiration of the term of three years above mentioned His Britannic Majesty's Government will, if necessary, consult with the Russian Government as to the desirability of any ulterior measures with regard to scientific expeditions to Tibet.”

I avail, etc.,

A. NICOLSON.

(Translation )

M. L'AMBASSADEUR,

*St. Petersburg, August 18(31) 1907.*

In reply to Your Excellency's note of even date, I have the honour to declare that the Imperial Russian Government think it desirable, so far as they are concerned, not to allow, unless by a previous agreement with the British Government for a period of three years from the date of the present communication, the entry into Tibet of any scientific mission whatever.

Like the British Government, the Imperial Government propose to approach the Chinese Government with a view to induce them to accept a similar obligation for a corresponding period.

It is understood that at the expiration of the term of three years the two Governments will, if necessary, consult with each other as to the desirability of any ulterior measures with regard to scientific expeditions to Tibet.

I have, etc.,

ISWOLSKY.



## APPENDIX I.

## TREATY BETWEEN TIBET AND NEPAL, 1856.

Treaty of peace, consisting of ten articles, between the States of Gurkha and of Tibet (Bhote), settled and concluded by us, the Chief Sardars, Bharadars, and Lamas of both Governments, whose signatures and seals are attached below. May God bear witness to it. We further agree that the Emperor of China is to be obeyed by both States as before, and that the two States are to treat each other like brothers, for so long as their actions correspond with the spirit of this Treaty. May God not allow that State to prosper that make war upon the other, unless the other's acts are contrary to this treaty, in which case the State that makes war upon the other shall be exempt from all blame.

1. The Tibetan Government agrees to pay the sum of ten thousand rupees annually as a tribute to the Gurkha Government.

2. The States of Gurkha and Tibet have both borne allegiance to the Emperor of China up to the present time. The country of Tibet is merely the shrine or place of worship of the Lama, for which reason the Gurkha Government will give all the assistance that may be in its power to the Government of Tibet, if the troops of any other Raja invade that country.

3. The Government of Tibet agrees to discontinue the collection of all the duties that have hitherto been levied upon subjects of the Gurkha State, merchants and others trading with its country.

4. The Government of Tibet agrees to give up to the Gurkha Government all the Sikh prisoners now in captivity within its territories, and all the Gurkha Sipahis and officers, and women who were captured in the war, also all the guns that were taken; and the Gurkha Government agrees to give up to the Government of Tibet all the Sipahis, also the Ryots of Kerong, Kutti, Junga, Tagla Khar and Chewur Gumba, and all the arma and yaks (chowrie cows) belonging to that country now in its possession, and on the final completion of this treaty it will restore Tagla Khar, Chewur Gumba, Kerong, Junga, Kutti, and Dhakling, and will withdraw all its troops that may be on this side of the Bhairab Langar range.

5. A Bharadar on the part of the Gurkha Government (not merely a naik) will for the future reside at Lhasa.

6. The Gurkha Durbar, with the free consent of the Government of Tibet, will establish a trading factory at Lhasa, for the sale of all kinds of merchandise, from jewelry, etc., to articles of clothing and food.

7. The Gurkha Bharadar residing at Lhasa will not interfere in the disputes of the subjects, merchants, traders, etc., etc., of the Government of Tibet, who may quarrel amongst themselves, neither will the Tibetan Government interfere in any disputes between subjects of the Nepal Government, Kashmiris, etc., who may be residing within the jurisdiction of Lhasa, but whenever quarrels may occur between Gurkha and Tibetan subjects, the authorities of the two States will sit together and will jointly adjudicate them; and all *Amdani* (income resulting from fines, etc.) will, if paid by subjects of Tibet, be taken by that Government, and if paid by Gurkha subjects, Kashmiris, etc., will be appropriated by the Gurkha Sarkar.

8. Should any Gurkha subject commit a murder within the jurisdiction of that Government, and take refuge in Tibet, he shall be surrendered by that country; if any Tibetan subject who may have committed a murder there take refuge in the Gurkha country, he shall in like manner be given up to the Government of Tibet.

9. If the property of any Gurkha subjects and merchants be plundered by any subject of the Tibetan Government, the party who has stolen it shall be compelled by the Tibetan authorities to restore it; should he not be able to do so at once, he shall be obliged by the Tibetan Bharadar to make some arrangement, and will be allowed a reasonable time to make it good. In like manner, if the property of any



Tibetani subjects and merchants be plundered by any subject of the Gurkha Government, the party who has stolen it shall be compelled by the Gurkha authorities to restore it; should he not be able to do so at once, he shall be obliged by the Gurkha Government to make some arrangement, and will be allowed a reasonable time to make it good.

10. All subjects of Tibet who may have joined the Gurkha cause during the war, and all subjects of the Gurkha Sarkar who may have taken part with the Tibetan Sarkar, shall, after the completion of this Treaty, be respected both in person and in property, and shall not be injured by either Government.

Dated Sambat (1912) Chaitra Badi 3rd (2nd day) Sombar, corresponding with the 24th March 1856.



## APPENDIX J.

### LIST OF THE MORE IMPORTANT TRADE ROUTES BETWEEN INDIA AND TIBET AND THE TRADE DUES LEVIED BY THE TIBETANS THEREON.

No.	Routes.	Dues levied by the Tibetans.
	<b>Kashmir.</b>	
1	From Ladakh, <i>vid</i> Rudok, Manasarwar Lakes, Mariamzla, and Shigatse to Lhasa.	Duties ranging from 4 per cent. to 10 per cent are levied by the Tibetans on goods coming by these routes, except from Mussulmans of Leh and Bashahris. Levying stations are Tashigong, Chakang and Rudok.
2	From Srinagar, <i>vid</i> Leh, Ladakh, Tashigong, and Indus valley to Gartok.	Ditto.
	<b>Punjab.</b>	
3	From Kulu and Lahul, <i>vid</i> Shangrang la, and Chumurti to Gartok.	Ditto.
4	From Simla <i>vid</i> Shipki to Gartok.	Amounts levied cannot be exactly stated, but dues are taken by the Jongpon of Chaprang (Tsparang).
	<b>United Provinces.</b>	
5	From Tehri Garhwal, <i>vid</i> Nilang to Gartok.	<p>(i) The other residents of Tehri State pay about 10 seers of grain in every 200 seers as "lapkacha."</p> <p>(ii) Bashahris and other traders pay a poll tax (gothal) of 8 annas a head.</p> <p>(iii) Bhotias pay also a small tax in kind on imported goods.</p>
6	From Badrinath (British Garhwal) <i>vid</i> Mana la, and Toling (Totlingmath) to Gartok.	<p>(i) About 10 seers of grain in every 100 is taken by the Jongpon of Toling. This tax is called "thal."</p> <p>(ii) Rupees 5 is taken as duty on British coin passing into Tibet on those Bhotias who take up cash to bring salt, etc., instead of taking up grain, etc., for barter. This tax is called "multhal."</p>



No.	Routes.	Dues levied by the Tibetans.
United Provinces— <i>contd.</i>		
7	From Almora, <i>via</i> Jashinath (British Garhwal) Niti la, and Daba to Gartok. ;	<p>(i) Each trader pays about 20 seers of grain to the Jongpon of Daba on his first visit each year, and half the amount each subsequent visit. This tax is called "thal."</p> <p>(ii) Each trader has to buy a box of brick tea from the Jongpon at an exorbitant rate. This tax is called "pugir."</p> <p>(iii) A toll of about 6½ annas is levied at two posts on the two roads from Daba to Niti on every 100 laden goats and sheep passing downwards. This tax is called "lathal."</p> <p>(iv) A duty of two seers in every 20 on sales or purchases of grain, salt, and borax is levied at Daba. This is "lapkacha."</p> <p>(The two Niti villages of Gurguti and Mohargaon are assessed somewhat differently.)</p>
8	From Almora, <i>via</i> Milam and Uttadhaura to Gartok.	<p>Heavy taxes are levied under the following headings:</p> <p>(i) Lathal (for crossing the pass).</p> <p>(ii) Gothai (poll tax).</p> <p>(iii) 10 per cent. tax on goods of every kind (but this amount is variable and often less).</p> <p>But it would appear that most of the villages in the Almora district trading with Tibet are assessed by the Tibetan authorities at special arbitrary rates. These taxes are collected by a Political Peshkar on our own side of the border and handed over to the Taklakot Jongpon and Barkha Tarjum.</p>
9	From Almora, <i>via</i> Darma or Noe Pass and Gyanema to Gartok.	As against Serial No. 8. The Barkha Tarjum has purchased from the Daba Jongpon the right to collect certain dues by the Darma pass.
10	From Almora, <i>via</i> Lankpya, Lekh and Gyanema to Gartok.	As against Serial No. 8. The Lankpay Lekh pass is under the control of the Barkha Tarjum.
11	From Almora, <i>via</i> Lipu Lekh and Purang (Taklakot) to Gartok.	As against Serial No. 8. The Lipu Lekh pass is under the control of the Jongpon of Taklakot (Purang).



INDIA OFFICE  
RECORDS

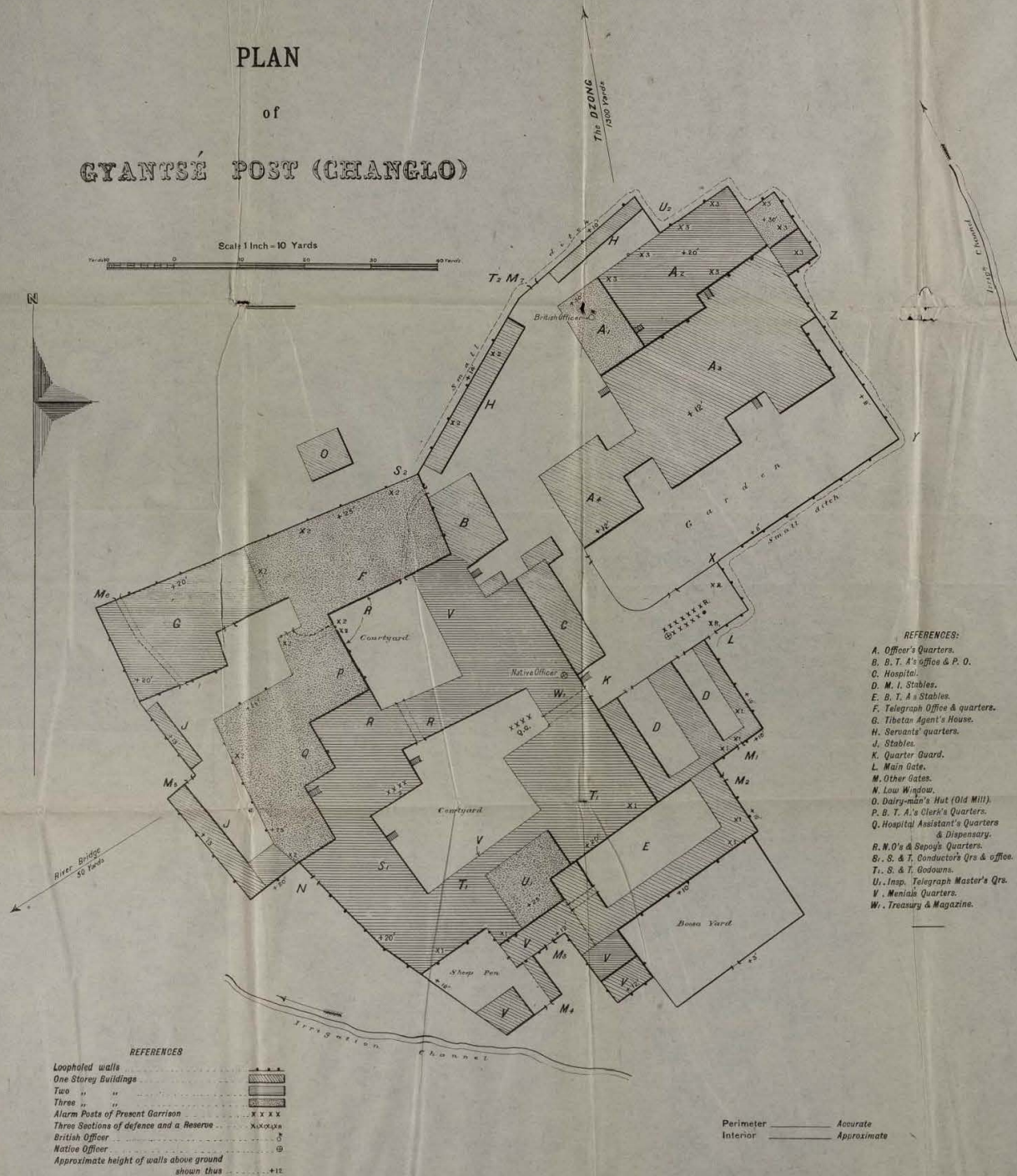
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MICROFILM



SKETCH "A"

# PLAN of GYANTSE POST (CHIANGLO)





SKETCH "B"



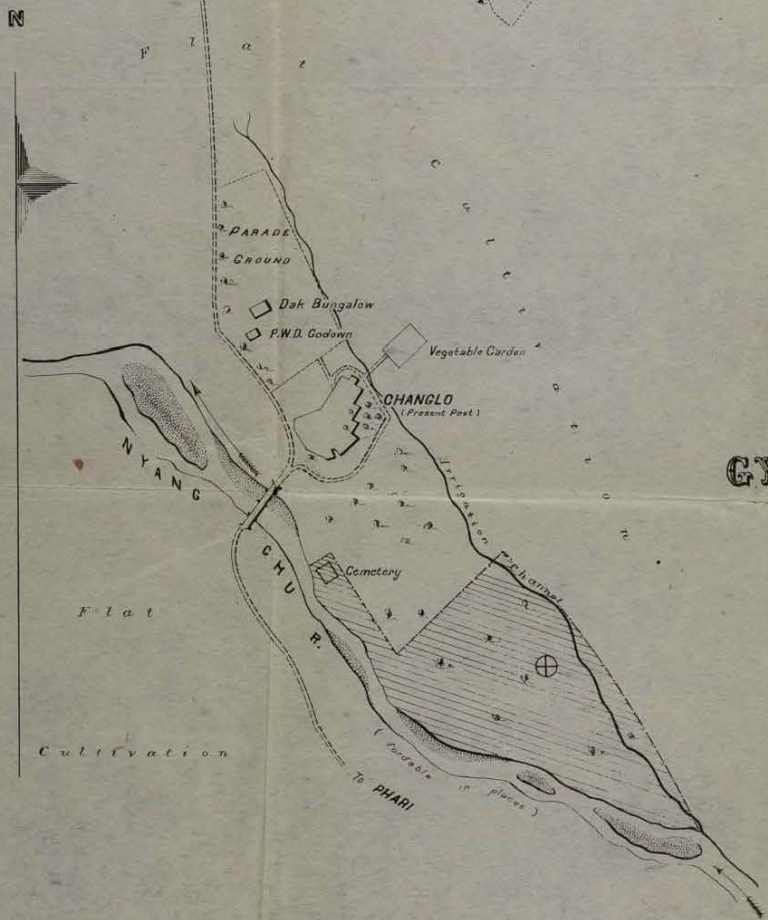
PHALA

To LHASA

SKETCH of GROUND

near

# GYANTSE POST

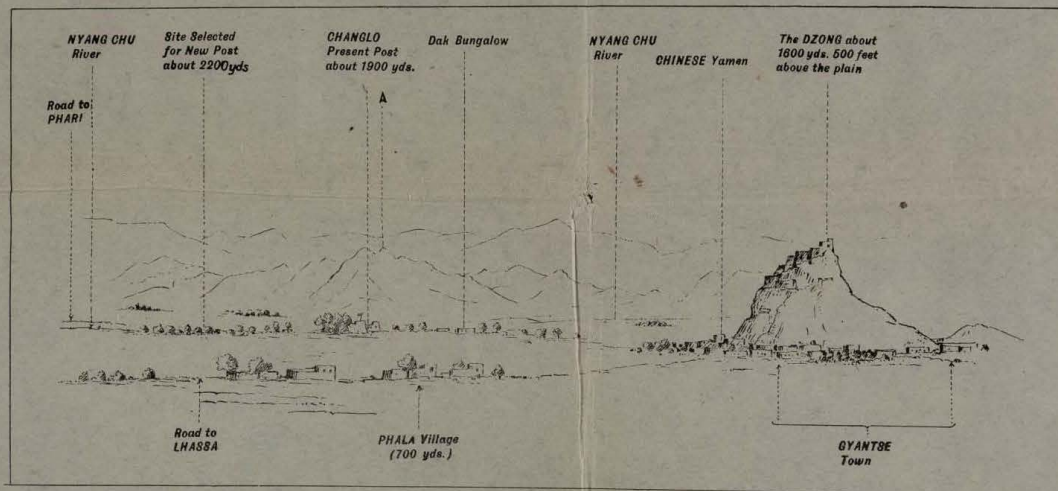


Area to be leased from Chinese.   
 Centre of proposed New Site   
 The new site is about 700 yds further from   
 the DZONG than CHANGLO.





# SKETCH "C"



I. B. Topo. Dy. No. 8,377.  
Exd. C. J. A., November 1909.

## GYANTSE PLAIN

View looking W. S. W. from small hill 600 yds. N. E. of PHALA.  
The plain is quite flat, covered with cultivation and intersected by water channels.  
Hill "A" is about 2 Miles from CHANGLO.

No. 5,039-I., 1909.



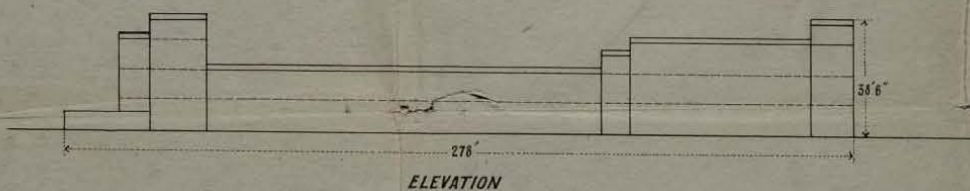
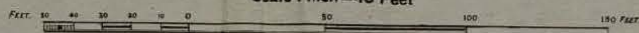


SKETCH "D"

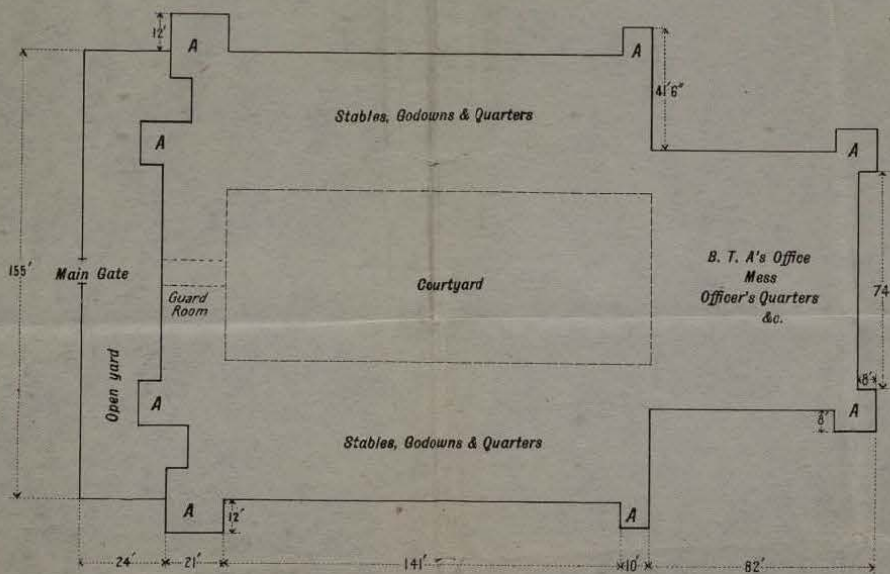
PLAN of NEW T. A. POST, GYANTSE  
(as at present sanctioned)

Material—Stone and Mud

Scale 1 Inch=40 Feet



ELEVATION



PLAN of GROUND FLOOR

A.A.A. Towers for Flanking Defence.



# ROUGH SKETCH of COUNTRY ROUND GYANTSE

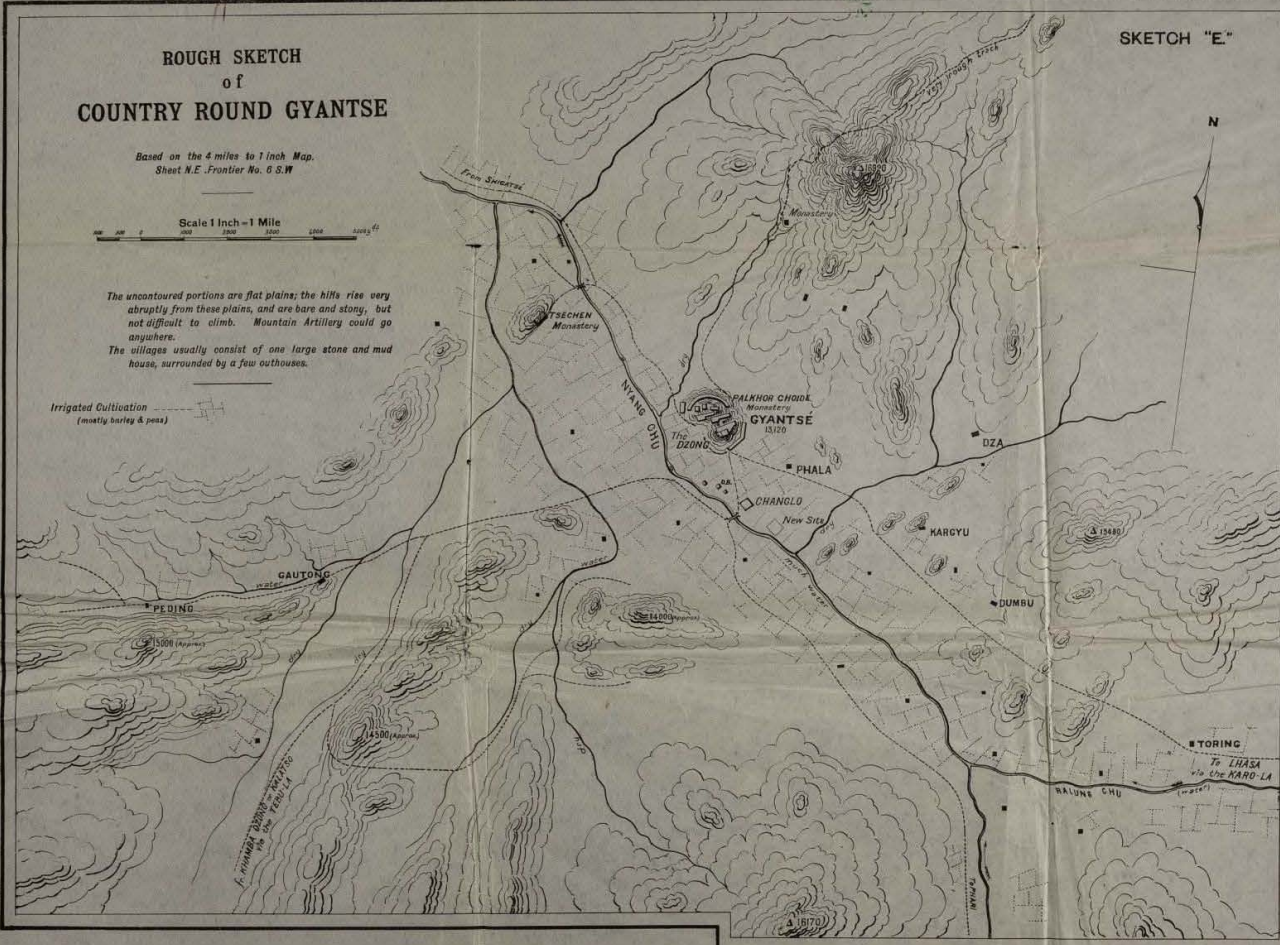
Based on the 4 miles to 1 inch Map.  
Sheet N.E. Frontier No. 6 S.W.

Scale 1 inch = 1 Mile

The uncounted portions are flat plains; the hills rise very abruptly from these plains, and are bare and stony, but not difficult to climb. Mountain Artillery could go anywhere.  
The villages usually consist of one large stone and mud house, surrounded by a few outhouses.

Irrigated Cultivation  
(mostly barley & peas)

SKETCH "E."



I. B. Topp, Dy. No. 4,578.  
Encl. C.J. A., December 1909.

No. 5,040-I., 1909.







CONFIDENTIAL.

T-36  
Con.

## Annual List of Corrections to Military Report on Tibet.

DECEMBER 1912.

Cover and title page.

For "Prepared by the General Staff, Army Headquarters,  
India" substitute:—

"General Staff, India.

Revised to 1912."

Add at end of page 113:—

In 1906 the Chinese, with the acquiescence of the British Government, took upon themselves the payment of the Tibetan Indemnity and paid the first of three instalments. A condition of its acceptance by the Government of India was Chinese adhesion to the Lhasa Convention. After prolonged negotiation and procrastination on the part of the Chinese, this was secured by the provisions of the Peking Convention of 1906. By this Convention the Chinese also undertook not to permit any other foreign state to interfere with the territory or internal administration of Tibet, while the concession of railways, etc., is denied to any state or the subject of any state other than China. It was, however, arranged that Great Britain should be entitled to lay down telegraph lines connecting the trade marts with India.

Peking Convention, 1906.

In August 1907 the Anglo-Russian Convention was concluded. Under the arrangement concerning Tibet, the Governments of Great Britain and Russia recognised the Suzerain rights of China in the country and Russia agreed that, by reason of her geographical position, Great Britain has a special interest in the maintenance of the *status quo* in the external relations of Tibet. Both parties engaged to respect the territorial integrity of Tibet and to abstain from all interference in the

Anglo-Russian Convention, 1907.

C204GSB



128  
1933

Annual List of Officers in Military Service

1933

Department of the Army

Washington, D.C.

1933

The following is a list of officers in military service, as of January 1, 1933. The list is arranged in alphabetical order by last name. The first column gives the name of the officer, the second column gives his rank, and the third column gives his position. The list is divided into two parts, one for officers in the Regular Army and one for officers in the National Guard and Reserve.

The list is arranged in alphabetical order by last name. The first column gives the name of the officer, the second column gives his rank, and the third column gives his position. The list is divided into two parts, one for officers in the Regular Army and one for officers in the National Guard and Reserve.





internal administration; both also agreed not to enter into negotiations with Tibet except through the intermediary of the Chinese Government. This latter engagement does not exclude the direct relations between the British and Tibetans provided for in Article V of the Anglo-Tibetan Convention of 1904 nor does it modify the engagements entered into between Great Britain and China in the Anglo-Chinese Convention of 1906. Both parties agreed not to send representatives to Lhasa nor to obtain concessions for railways, etc. In an Annex to the Convention the British Government reaffirmed the declaration that the occupation of the Chumbi valley should cease after the payment of three annual instalments of the Tibetan indemnity. Scientific missions into Tibet were not to be sent by Great Britain or Russia for a period of three years after which the matter would again be considered.

On the 27th January 1908, the final instalment of the Tibetan indemnity having been paid, orders were issued for the immediate evacuation of the Chumbi valley under the terms of the Lhasa Convention. The British occupation ceased on the 8th February, the garrison evacuating the valley on that day. The only British troops now remaining in Tibet are the escorts to the British Trade Agents at Gyantse and Yatung, numbering 50, and 25 rifles Indian infantry, respectively.

Evacuation of the Chumbi valley by the British, 1908.

Chinese activity in Tibet and obstruction to the British now became more pronounced, and repeated attempts were made to interfere in matters of trade between the British and the Tibetans, thereby infringing on treaty rights. They also introduced reforms in the Tibetan administration and made evident their intention of converting their suzerainty into sovereignty.

Chinese intention to exercise sovereignty over Tibet.

Chinese intrigue in the border states of Nepal, Sikkim and Bhutan also became apparent, and the Chinese Government had the effrontery to claim suzerainty over Nepal and Bhutan.

In 1903 Chao Erh Fêng was appointed "Warden of the Marches." A man of ability and determination of character, he at once set about a policy of consolidating with vigour Chinese power in Tibet. He did not proceed to Lhasa, being busily engaged by drastic means, in the reduction of the tribes in the Marches of Eastern Tibet, organising the administration, and initiating colonisation schemes and improving communications. Chao gradually subdued the tribes, and by August 1909 had

Chao Erh Fêng "Warden of the Marches" and Resident Minister in Tibet.



reduced the country to order as far west as Batang, and then continued his successful operations into Derge. At the end of the year he had worked down to Chiamdo and prepared for an advance on Lhasa, threatening the Tibetan authorities with dire consequences if they disobeyed the Chinese Government and demanding the withdrawal of Tibetan troops from Eastern Tibet.

After his flight from Lhasa in 1904, the Dalai Lama dwelt for some time in Mongolia, whence he still exercised some control over Tibetan affairs. In 1905 permission was granted to him to return to Tibet. He moved very slowly, petitioning all the time to be allowed to go to Peking to see the Chinese Emperor, having also communications with Russia through Dorjjeff. In 1908 he obtained permission to go to Peking and arrived there on 28th September. A new title was conferred upon him by the Empress Dowager, he was presented with an annual grant of 10,000 taels and ordered to return to Tibet. He left Peking in October with a large following, together with a body of Chinese regular troops who were to form the garrison of Lhasa and who accompanied him as far as Nagchuka. He arrived in Lhasa on 21st December.

Dalai Lama's return to Lhasa, 1909.

The Chinese force which left Ssü-ch'uan for Lhasa under Brigadier-General Chung Ying numbered about 1,700 of all ranks, including 800 regulars and a mountain battery. The Tibetans mobilized several thousand troops, but made no effective resistance and the Chinese entered Lhasa in February 1910. They appealed to the British for help, but were given to understand, in reply to this and subsequent appeals, that the Government of India was unable to interfere in the internal administration of Tibet by their treaty obligations with Russia and China. The Dalai Lama escaped, hotly pursued, to British territory, and in March arrived in Darjeeling where he took up his residence. He was deposed by Imperial decree, and instructions were given for the discovery and confirmation of a new Dalai Lama. The Tibetan ministers and National Assembly denied the right of the Chinese to depose him. The Chinese thus finding themselves in a difficulty, made frequent efforts to induce him to return on the assurance that he would not suffer in person or property. Nothing, however, was said about reinstatement. The Lama replied that he could not return unless Tibet were restored to its former position and the Chinese troops were withdrawn.

Chinese advance on Lhasa.

Flight of Dalai Lama to India, 1910.



There now no longer remained any doubt that the Chinese had not only made their suzerainty effective but had usurped all functions of government and established actual sovereignty over the country. The state of unrest aroused in the country nearly led to the despatch of a British force to Gyantse in 1910 to safeguard British interests and the Trade Agencies. At the beginning of 1911, the Chinese garrison of Lhasa was said to number 2,000 and they had altogether some 4,000 troops in the country.

Chinese firmly  
established in  
Tibet

Throughout 1910-11 Chao Erh Fêng continued the subjugation of the tribes of the "Marches", among whom his very name inspired terror. In December 1911, after the Revolution, he was executed by the Provincial Government of Ssu-Chuan, who feared his influence and strong personality as a staunch Manchu supporter and that he might become Military Dictator of the Province.

Chao Erh Fêng.

In May 1911 Lien Yu the Chinese Amban in Lhasa, despatched a force of some 300 men under Brigadier General Chung Ying to occupy Kongbu and operate from there in the reduction of the unruly robber tribes living in Pomed. The force proved too small and sustained a severe defeat at the hands of the tribesmen. Chung Ying was recalled to Lhasa in August and Lo Ch'ang-Ch'i was then sent in command of a force of 1,000 of the best troops at Lhasa. Simultaneously a similar force was despatched from Chiamdo and entered the Po country from the east near Shiuden gomba. The two forces succeeded in joining hands but their operations were hardly more successful than those of Chung's small force. Scantiness of food, the impassable nature of the jungle that covered the country, continuous rain and sickness told on the troops. The Popas suited their tactics to the nature of their country. Skilled in the art of taking cover, they seldom faced the Chinese by day, except when they encountered a few stragglers, when they used their long heavy swords with effect. They relied principally on their poisoned arrows, which they shot from thick cover, unseen, and on surprise attacks at night or at dawn. The further the Chinese advanced, the more serious became the opposition as advance parties of Popas fell back on the main body, which occupied successive fortified positions at intervals along the jungle track; while one party held the Chinese in front, other parties would creep up unobserved in the thick undergrowth on either side of the track. In face of these difficulties Lo Ch'ang Chi failed to make any considerable progress and at the end of Novem-

Chinese opera-  
tions in Pomed  
(or Po-mi).



ber the force was recalled to Lhasa. The troops after putting to death their leader on the way reached Lhasa in January 1912 to find their compatriots involved in mutiny and in a quarrel with the Tibetans. About 200 Chinese troops remained in Pomed after the two main forces had been withdrawn.

The Chinese established themselves in the district of Zayul some time in 1910 without opposition from the peaceable inhabitants, and garrisoned posts at Chikung and Rima. This district proved of importance to them, enabling them to operate in Pomed from the east as well as the west. It also commands a route leading from Menkong on the Salween, through Sanga Chudong, Shiuden gomba and Pomed to Kongbu, and joining the "Janglam" some 13 marches east of Lhasa. To secure this route, one more direct and traversing more fertile regions than the more northerly routes, was their main object in attempting the conquest of the Popas. From Rima they intrigued among the Mishmis and posted flags at Menilkrai, in the Lohit valley, to mark their southern boundary.

In November 1911, a Chinese revolutionary outbreak occurred throughout Tibet and the troops subsequently mutinied. The mutineers forcibly took transport animals from the Tibetans to enable them to return to China; some departed for British territory after selling their rifles to the Tibetans, others commenced looting. The depredations of the Chinese soliders soon aroused the Tibetans to reprisals and led to hostilities. The Chinese were at first successful but latterly suffered several minor defeats. A considerable number surrendered their arms and ammunition to the Tibetans in return for free transport and travelling expenses to return to China *via* India. Many of the Chinese officials took refuge in the British Trade Agencies.

Early in 1912 the remnants of the Chinese forces were hemmed in in Lhasa, where they occupied the southern part of the city and the Tibetans the northern part. Continuous fighting occurred during April, the Tibetans continually receiving reinforcements till it was reported that they had 10,000 monk volunteers and 10,000 troops surrounding the Chinese who now numbered about 1,000. The latter applied to the British to act as intermediaries, being willing to surrender. Attempts at mediation were made by the Nepalese but failed, the obstacles in the way of a settlement being the desire of the Tibetans to obtain rifles which the Chinese were unwilling to surrender, and the apprehension of the latter regarding their fate or safe conduct to the

Chinese occupation of Zayul.

The Revolution and hostilities between Chinese and Tibetans.

Chinese besieged in Lhasa.



frontier did they give up their arms. By May the Chinese were said to be much reduced in strength and to great straits for food. So feeble, however, was the Tibetan attack and so slack the investment, that in June and July the Chinese made several successful sorties and considerably augmented their stock of provisions. Dissensions also arose in the ranks of the Tibetans and the Chinese received some assistance from a pro-Chinese party among the former outside Lhasa.

On the outbreak of the insurrection in Tibet the Dalai Lama began to consider returning to his country. He left Darjeeling in February for Kalimpong. Here he hesitated till 24th June when he started for Tibet, but it became evident that in the meantime he had been exerting a considerable influence in the direction of the insurrection both in Tibet and in the "Marches." At about the end of July he took up his quarters at Samding monastery near Nagartse Jong pending the cessation of hostilities. While on his journey he received letters from the Chinese Amban and General in Lhasa stating the terms on which they were prepared to surrender, and early in August, shortly after his arrival at Samding, hostilities were brought to an end on the basis of these terms. These were that the Chinese military officers and soldiers were to return to China *via* India, for which purpose free transport and rations would be provided for them and that all their arms and ammunition were to be surrendered and locked up under the seals of both parties and of the Nepalese Representative. The conclusion of the negotiations had been largely due to the efforts of the latter. The arms and ammunition were deposited under the charge of a Nepalese guard, but the Chinese were permitted to retain 60 rifles for the personal guard of the newly appointed Amban.

Return of the  
Dalai Lama,  
1912.

After the conclusion of the agreement the Chinese made every effort to evade its terms and to delay their departure, but finally commenced the withdrawal from Lhasa, in batches, early in September. Further procrastination and delay occurred at Yatung in the Chumbi valley, but the last batch eventually crossed the Frontier into Sikkim on 13th October, and sailed on 1st November from Calcutta for China. The newly appointed Amban, Chung Ying (lately commanding the troops in Lhasa), however, by virtue of his appointment, retained 200 soldiers as his escort and, with total disregard of the terms of the agreement, also 2 or 3 maxims, some field guns, about

Repatriation of  
the Chinese.

Amban Chung  
Ying.



500 modern rifles with a considerable stock of ammunition. The ex-Amban, Lien, with about 100 armed followers, also hesitated to leave the country but, threatened by an armed force of Tibetans, slowly commenced his journey towards India.

Meanwhile, early in 1912, the insurrection in Tibet proper spread to Eastern Tibet and the Marches. A large force of well-armed mounted men from Tibet, controlled from Lhasa (under the direction of the Dalai Lama) assisted in the revolt of the Eastern tribes. The whole of the country was overrun as far east as the Yalung river, and in June the Chinese posts of Hsiang Cheng, San ngai, Gon joh, Draya, Sanpa, Kantze and Litang were captured by the Tibetans. In April a body of 150 Chinese soldiers returning to Lhasa from Pemakoi were annihilated in Kongbu. At Shobando in June, another body of 100 were disarmed and permitted to return to China. Early in July Ho-k'ou, on the left bank of the Yalung, was threatened on both banks and 300 Tibetans made an attack on the place but were repulsed. The Chinese garrison in Zayul was annihilated in September.

Revolt in Eastern Tibet and the "Marches."

The wave of revolt travelled no further east for by now the Chinese had awakened to the seriousness of the situation and had set about organising an expedition, the object of which was stated to be "to force Tibet to enter the Chinese confederacy, to safeguard the frontier of Ssü-Ch'uan and convince foreigners that the Chinese army was not to be despised." Protests by the British Minister, Peking forced the Central Government to declare that the expedition would not advance into Tibet proper and that its operations would be confined to the pacification of the Marches. The expedition numbered some 4,000 men under Yun Ch'ang-heng, Military Governor of Ssü Ch'uan, an able and energetic man of 26 years of age. A contingent from Yün nan, of 3,000 men, was to march *via* Talifu, Lichiang and Atuntzu and join the Ssü Ch'uan contingent at Batang for a combined advance on Lhasa. The advanced guard of Yün's force relieved the pressure at Ho-k'ou about 12th July but was unable to advance beyond a point 4 miles west of Ho-k'ou, the Tibetans being in force in a strong position at Ma Kai Chung, 10 miles west of Ho-k'ou, said to be capable of being held by a few men against an army. Difficulties in the supply of rations and money rendered the Chinese movements slow, but early in August Yün was in a position to make a forward movement from Tachienlu. His force operated in two columns from that place, one (1,000 men)

Chinese Expedition, 1912.



by the north road *via* Derge to Chiamdo, the other (2,000 men) by the south road on Batang. The northern column made rapid progress, encountering little opposition and recovered Chiamdo on 9th September, Draya on 13th September, and the bridge at Elochia, 2 days west of Chiamdo, on the 16th September and then by a flank movement relieved Batang which had held out through in great straits. The southern column captured the Ma Kai Chung position on 11th August and after defeating the Tibetans at Po lang kung recovered Litang on 3rd September, but suffered a reverse 40 miles west of Litang on 4th November. Towards the end of the year the Chinese were premeditating an attack on Hsiang cheng where the Tibetans were in strength, well-armed and in a strong position. The Yün-nan contingent in October occupied Chung tien, Atunzu, Yenching and Wei hsi. The Military Governor of Yün-nan had ordered them merely to guard the Yün-nan frontier and not to enter Tibet.

The proposal of the Military Governor of Ssü Ch'uan was, Proposed new Province. after the successful conclusion of the campaign, to create a new province embracing the "Marches" and extending roughly 1,000 miles from east to west from Tachienlu to the range of Tan ta (Chor Kongla) and 1,300 miles from Hsi ning (Kokonor) and Kansu to Wei hsi. The new province was to be called Hsi-kiang and to be placed on exactly the same footing as China proper as regards administration and payment of taxes.

Exaggerated news of the advance and successes of the Chinese expedition buoyed up the hopes of their compatriots in Lhasa Renewal of fighting in Lhasa. and was the reason for the dilatory manner in which the Chinese troops fulfilled the terms of the agreement in quitting the country; it also led Chung Ying to commit a distinct breach of the terms of the agreement in retaining a large number of arms. He seized the Teng Yeling monastery and, strengthening it, installed himself there with a large quantity of supplies. The exasperated Tibetans attacked him but unsuccessfully in face of the maxim gun and modern rifle fire. Fighting which recommenced on the 23rd September was still in progress in November.

During the absence of the Dalai Lama from Tibet from 1904 The Tashi Lama to 1910 the Tashi Lama carried out, informally, the temporal duties of the Dalai Lama under the Chinese Amban. In 1905-06 he visited India at the invitation of the Indian Government and was present at the review held at Rawalpindi in honour of the Prince of Wales. He afterwards visited Buddhist shrines in



several parts of northern India and also Calcutta. On account of this visit he incurred the suspicion of a section of the Tibetans and a rebuke from the Chinese Emperor. After the occupation of Lhasa by the Chinese in 1910 and during the disturbances in 1911 and 1912 he maintained a neutral attitude, thereby incurring the hostility of the Tibetan National Assembly. On the return of the Dalai Lama to Tibet in 1912 the Tashi Lama met him at Ralung where all differences between the two were settled.

The feeling in Western Tibet is reported (1912), to be strongly Western Tibetan anti-Chinese and pro-British.

The gold mines of the Nari may exert a powerful attraction on the Chinese who if once they enter the region will take up the vast area of land formerly under cultivation.

Should such colonisation take place, the question of the boundary, at present ill-defined, and of the alleged suzerainty over the Bhutiyas and the valleys of Niti, Hoti, and Mana will become important.

Celibate Lamaism and polyandry are stated to be causing a rapid decline of the Tibetan population.

British policy with regard to Tibet may be summed up in the statement made to the Dalai Lama, on his departure for Tibet in 1912, in a farewell message from the Viceroy, that, "the desire of the Government of India was to see the internal autonomy of Tibet under Chinese suzerainty, but without Chinese interference, so long as cordial relations were preserved between India and Tibet and treaty obligations were duly performed."

In July 1912, the British Minister at Peking, acting under instructions from His Majesty's Government, protested to the Chinese Government against any change in the political status of Tibet which would be at variance with the treaties concluded between Great Britain and Tibet and with the repeated undertakings given by China to His Majesty's Government in terms to this effect.

The British Government, while they have formally recognised the "suzerain rights" of China in Tibet, have never recognised and are not prepared to recognise the right of China to intervene actively in the internal administration of Tibet which should remain, as contemplated in the treaties, in the hands of the Tibetan authorities, subject to the right of Great Britain and China, under Article I of the Convention of 27th April 1906 to take such steps as may be necessary to secure the due





fulfilment of treaty stipulations. The British Government demurred, on these grounds, to the conduct of the Chinese officers in Tibet during the last two years in assuming all administrative powers in the country, and to the doctrine propounded in Yuan Shih Kai's presidential order of 27th April 1912, that Tibet is to be "regarded as on an equal footing with the provinces of China Proper" and that "all administrative matters" connected with that country "will come within the sphere of internal administration." The British Government formally decline to accept such a definition of the political status of Tibet, and must warn the Chinese Republic against any repetition by Chinese officers of the conduct to which exception has been taken. The right of China to station a representative with suitable escort at Lhasa is not disputed, but the British Government are not prepared to acquiesce in the maintenance of an unlimited number of Chinese troops either at Lhasa or in Tibet generally. The conclusion of a written agreement on the foregoing lines was pressed for as a condition precedent to the recognition of the Chinese Republic.



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